

# Scientific Inventory of Onshore Federal Lands' Oil and Gas Resources and Reserves and the Extent and Nature of Restrictions or Impediments to their Development

**The Paradox/San Juan, Uinta/Piceance,  
Greater Green River, and Powder River Basins  
and the Montana Thrust Belt**

**In Compliance with the Energy Policy and Conservation Act  
Amendments of 2000, P.L. 106-469 §604**

Prepared  
by the  
United States  
Departments  
of the  
Interior,  
Agriculture,  
and Energy



January 2003

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*Prepared by the*

U.S. Departments of the Interior, Agriculture and Energy



January 2003

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## Executive Summary

# EXECUTIVE SUMMARY

## THE MANDATE FROM CONGRESS

In November 2000, Congress passed and President Clinton signed the Energy Policy and Conservation Act Amendments of 2000 (EPCA) which directed the Secretary of the Interior, in consultation with the Secretaries of Agriculture and Energy, to conduct an inventory of oil and natural gas resources beneath Federal lands.

“The inventory shall identify: 1) the United States Geological Survey reserve estimates of oil and gas resources underlying these lands; and 2) the extent and nature of any restrictions or impediments to the development of such resources.”

This act marks the first time that Congress asked the Department to conduct a study of restrictions.

On October 11, 2001, Congress provided its sense of priority for this study:

“...In light of recent attacks on the United States that have underscored the potential for disruptions to America’s energy supply, the managers believe this project should be considered a top priority for the Department.”

This report is a portion of the inventory of public oil and gas resources requested by Congress. This inventory is a comprehensive review of federal oil and gas resources and constraints on their development in five basins in the Interior West (Figure ES-1). These basins contain most of the onshore natural gas and much of the oil under Federal ownership within the 48 contiguous states. The EPCA requires that all onshore Federal lands be inventoried. The inventory will be expanded to include additional Federal lands and resources in the future.

For the federal public-land managing agencies, principally the Department of the Interior’s Bureau of Land Management (BLM) and the Department of Agriculture’s Forest Service (USFS) and the citizens they serve, this inventory will serve primarily as a planning tool. It provides public-land managers with additional information to help them develop management plans for the lands under their jurisdiction. It allows them to identify areas of high oil or gas potential and to evaluate the effectiveness of available stipulations in balancing the responsible development of those resources with the protection of other valuable resources in the area. Conversely, it also allows resource managers to identify areas of low oil and gas potential but high potential for other resources (e.g. wildlife) or uses (e.g. recreation). In these situations, resource managers and the public can consider applying land management strategies that may promote increased protection of valuable resources or promotion of uses that might ordinarily conflict with oil or gas development. This report is a critical step in evaluating whether existing rules are appropriate, or need to be changed, either to provide greater protection to the environment or to promote appropriate resource development.

## THE PRESIDENT'S NATIONAL ENERGY POLICY DIRECTIVES

In May 2001, President Bush's National Energy Policy directed that the EPCA inventory be expedited and that constraints to federal oil and gas leasing be reassessed and modified "where opportunities exist (consistent with the law, good environmental practice, and balanced use of other resources)." The National Energy Policy further directed that any reassessment of constraints be conducted "with full public consultation, especially with people in the region." This inventory provides information regarding the geographical relationship between oil and gas resources and reserves and the constraints that govern their development. It is not a reassessment of any stipulations on the development of oil and gas resources. The public's opportunity to participate in any reassessment of restrictions on oil and gas activities will occur in public-land planning or legislative processes. This inventory provides some basic information for any such processes. Additional information may be available from monitoring and scientific studies incorporated into adaptive management processes.

The National Energy Policy provides an overview of the U.S. energy situation and alternatives available to increase energy efficiency and conservation, increase energy supplies, and protect the environment. At the direction of Congress, the present study focuses on the traditional energy resources of oil and natural gas beneath Federal lands\*.

This inventory was prepared by staff of the Department of the Interior's BLM and United States Geological Survey (USGS); the USFS; the Department of Energy (DOE); and the Energy Information Agency (EIA). The USGS provided the assessment of undiscovered, technically recoverable oil and natural gas resources beneath Federal lands based on commercially available data. The EIA contributed the analysis of proved reserves for Federal lands. The EIA data incorporates economic considerations not included in the USGS resource assessment. The DOE provided technical expertise to guide the design and analysis process for the inventory. The BLM and the USFS contributed their land-use planning information regarding oil and natural gas availability and leasing stipulations for the lands under their respective jurisdictions.

## METHODOLOGY

This inventory is based on information that has been previously developed through both the scientific and planning processes of the contributing federal agencies. This information has often been provided to the public for its review and use. The information used in the present study is the best commercial and scientific information available. It has been compiled and analyzed by experts from the contributing agencies. The analytical methods and protocols used in the supporting studies have been subjected to rigorous review. The present study necessarily incorporates the assumptions, conditions, and limitations of the supporting scientific information as discussed in this report. This inventory is significant because for the first time information about oil and gas resources and reserves is overlain in a comprehensive manner with information about constraints on their recovery.

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\*In recognition of the increased emphasis on the development of alternative energy resources in the National Energy Policy, the Department of Energy, in coordination with the Department of the Interior, is releasing a report, analogous to the present report, on the potential of particular federal lands to support alternative energy technologies such as wind, solar and biomass.

## **Executive Summary**

A steering committee of the participating agencies identified five major geologic basins within the Interior West as priority geographic areas to inventory. The five basins are the Paradox/San Juan Basins in Colorado, Utah and New Mexico; the Uinta/Piceance Basins in Colorado and Utah; the Greater Green River Basin in Wyoming, Colorado and Utah; the Powder River Basin in Montana and Wyoming; and the Montana Thrust Belt in Montana.

These basins were selected for the inventory for several reasons. First, these basins encompass nearly 104 million acres. About 59 million acres in this area are under federal management. This acreage includes split estate lands in which private surface lands are underlain by federal subsurface mineral rights. Second, these basins contain most of the onshore natural gas and much of the oil under public ownership within the 48 contiguous states. Third, the population of the Interior West is growing rapidly. Public lands in this region face increased demands for their use as sites for recreation, livestock grazing, forestry, open space, wildlife habitat, mining, and oil and gas production.

The analysis of constraints to development centered on two factors that affect access to oil and gas resources on Federal lands. Those factors are (1) whether the lands are “open” or “closed” to leasing, and (2) the degree of access afforded by lease stipulations on “open” lands. All oil and gas leases have statutory and regulatory requirements. These stipulations can have many purposes ranging from the protection of environmental, social, historical, or cultural resources or values to the payment of rentals and royalties.

Approximately 1,000 different lease stipulations are being applied by the land managing agencies in the five basins studied. To focus the analysis of constraints on oil and gas development, the inventory evaluated the extent of public lands (1) in which leasing is permitted under standard stipulations, and (2) in which leasing is permitted with increasing limitations on access, principally seasonal occupancy restrictions, and (3) in which oil and gas leasing is prohibited. The analysis also included consideration of exceptions to stipulations granted after a review of on-the-ground conditions and the use of modern technologies such as directional drilling. The ten categories of restrictions analyzed in this report include the complete range of access restrictions associated with oil and gas leasing in the five basins.

## **CONCLUSIONS**

While the results of this analysis are different for each of the five basins studied, the cumulative results for all of the basins (Figure ES-2) can be summarized as follows (Federal lands, including split estate, in the five basins total 59,416,000 acres).

1. Approximately 39 percent (23,091,000 acres) of the Federal land in these basins is available for oil and gas leasing with standard stipulations (Figure ES-2, “Leasing, Standard Lease Terms”). Based on resource estimates, these lands contain 57 percent of the technically recoverable oil and 63 percent of the technically recoverable gas in the basins.
2. Approximately 25 percent (15,152,000 acres) of the Federal land is available for leasing with restrictions on oil and gas operations beyond standard stipulations (Figure ES-2, All other “Leasing” categories except “Leasing, Standard Lease Terms”). Based

on resource estimates, these lands contain 28 percent of the technically recoverable oil and 25 percent of the technically recoverable gas in the basins.

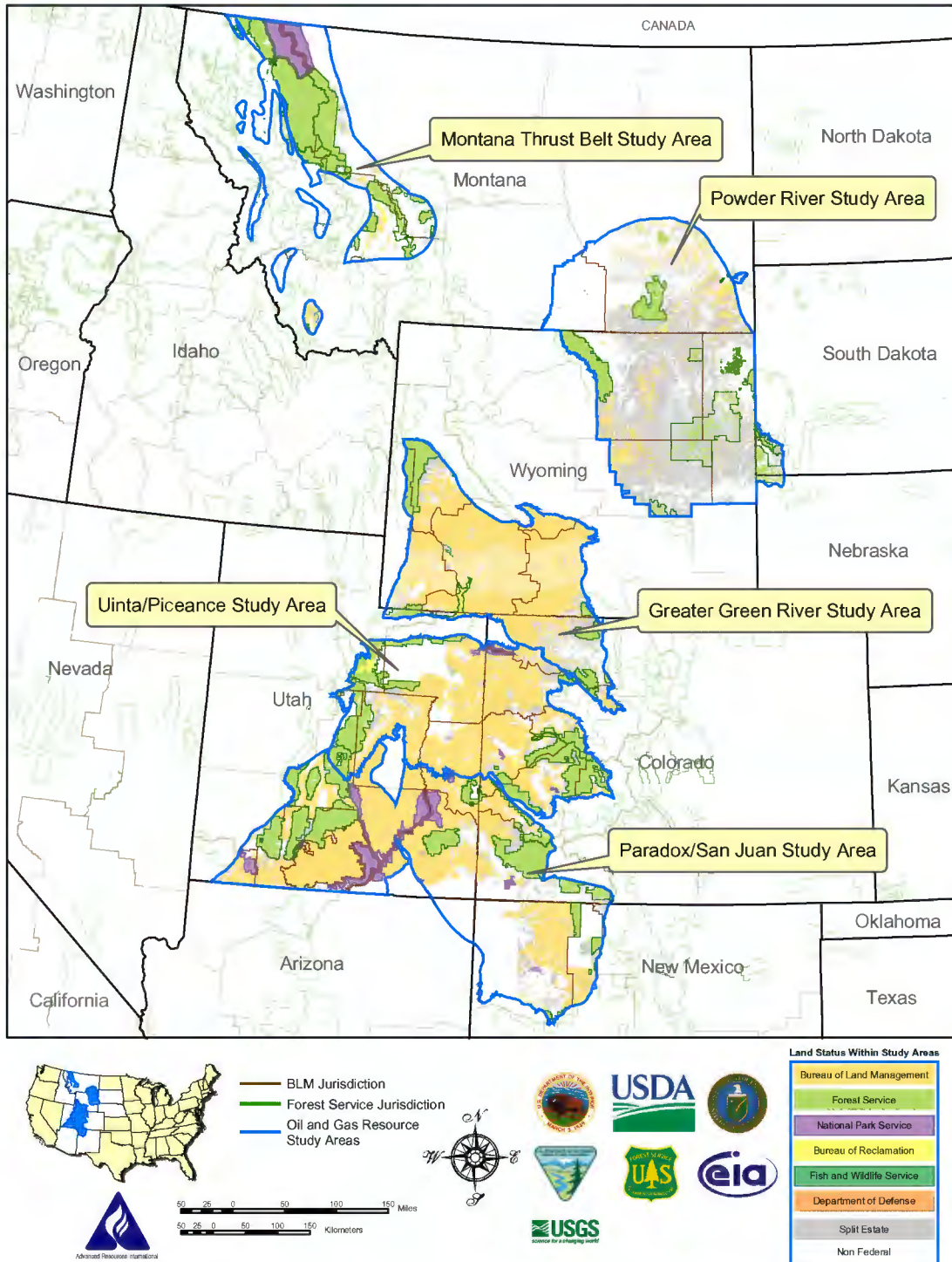
3. Approximately 36 percent (21,173,000 acres) of the Federal land in the five basins is not available for leasing (Figure ES-2, 3 “No Leasing” categories). Based on resource estimates, these lands contain about 15 percent of the technically recoverable oil and 12 percent of the technically recoverable natural gas in the basins.

## **COMPLIANCE WITH THE LAW**

All oil and gas leases on Federal land, even those with the least restrictive stipulations, are subject to full compliance with all substantive and procedural environmental laws and regulations. These laws include the National Environmental Policy Act, Clean Water Act, Clean Air Act, Endangered Species Act, and the National Historic Preservation Act. While compliance with these laws may delay, modify, or prohibit oil and gas activities, these laws represent the values and bounds Congress believed appropriate to place on Federal land managers for their stewardship of Federal lands. The present study was conducted at the request of Congress to provide information for it to consider in forthcoming deliberations on the role of Federal lands in the U.S. energy situation.

It is important to emphasize that this inventory was prepared at the direction of Congress. It is not a decisionmaking document. The inventory identifies areas of high and low oil and gas potential and the nature of constraints to the development of those resources in five basins in the Interior West. Any reassessment of these restrictions on oil and gas activities will occur in public-land use planning or the legislative process, both of which are fully open to public participation and debate over the appropriate balance between resource protection and resource development.

**Executive Summary**



**Figure ES-1 Outline of Study Areas Showing Federal Land Status**

More  
Constrained  
↑  
Less  
Constrained

	Access Category	Area		Resources			
		(acres x1000)	Percent of Federal	Total Liquids* (MMBbl)***	Percent of Federal	Total Natural Gas** (Bcf)****	Percent of Federal
1.	No Leasing (Statutory/Executive Order), (NLS)	10,068	16.9%	298	7.7%	9,035	6.5%
2.	No Leasing (Administrative), (NLA/LUP)	6,007	10.1%	116	3.0%	3,690	2.7%
3.	No Leasing (Administrative), (NLA)	5,098	8.6%	182	4.7%	3,185	2.3%
4.	Leasing, No Surface Occupancy (NSO)	2,714	4.6%	50	1.3%	3,120	2.3%
5.	Leasing, Cumulative Timing Limitations on Drilling >9 Months (TLs >9)	25	0.0%	3	0.1%	114	0.1%
6.	Leasing, Cumulative Timing Limitations on Drilling 6-9 Months (TLs 6-9)	2,521	4.2%	250	6.5%	5,549	4.0%
7.	Leasing, Cumulative Timing Limitations on Drilling 3-6 Months (TLs 3-6)	5,442	9.2%	528	13.7%	20,401	14.7%
8.	Leasing, Cumulative Timing Limitations on Drilling <3 Months (TLs <3)	697	1.2%	8	0.2%	733	0.5%
9.	Leasing, Controlled Surface Use (CSU)	3,753	6.3%	221	5.7%	6,080	4.4%
10.	Leasing, Standard Lease Terms (SLTs)	23,091	38.9%	2,198	57.0%	86,566	62.5%
Total, Federal Lands Including Split Estate		59,416	100.0%	3,854	100.0%	138,472	100.0%
Total Non-Federal		44,256		2,455		87,668	
Total Study Area		103,672		6,309		226,141	

\* Comprising oil, NGLs and liquids associated with natural gas reservoirs

\*\* Comprising associated dissolved and nonassociated natural gas

\*\*\*MMBbl -- Millions of Barrels

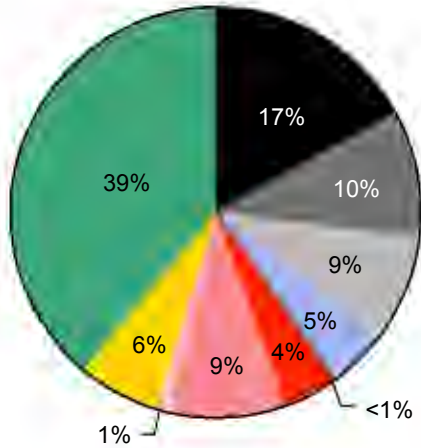
\*\*\*\*Bcf -- Billion cubic feet

Small rounding errors may be present

**Table ES-1 Summary of All EPCA Inventory Areas – Oil and Natural Gas Resources Affected by Access Categories**

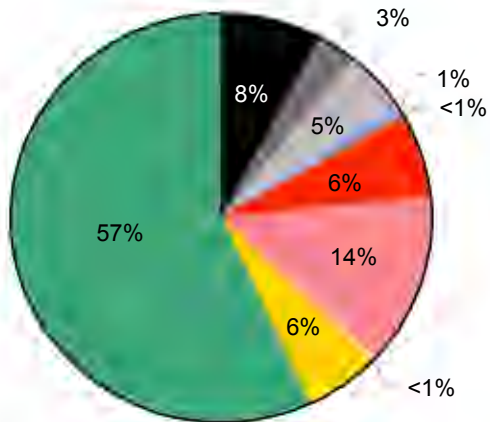


Percent of Federal and Split Estate Lands



- No Leasing (Statutory/Executive Order)
- No Leasing (Administrative, Pending Land Use Plan)
- No Leasing (Administrative)
- Leasing, No Surface Occupancy
- Leasing, Cumulative Timing Limitations on Drilling >9 Months
- Leasing, Cumulative Timing Limitations on Drilling 6-9 Months
- Leasing, Cumulative Timing Limitations on Drilling 3-6 Months
- Leasing, Cumulative Timing Limitations on Drilling <3 Months
- Leasing, Controlled Surface Use
- Leasing, Standard Lease Terms

Percent of Oil Resources



Percent of Natural Gas Resources

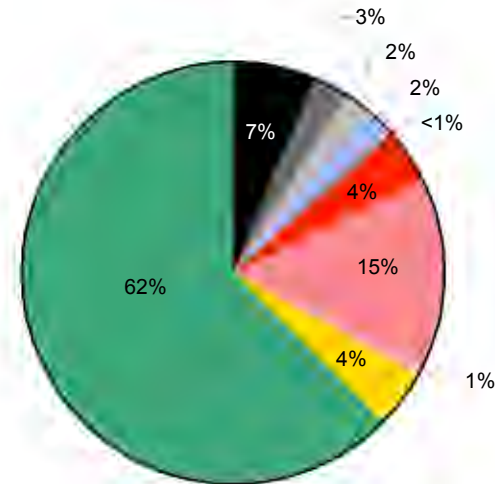


Figure ES-2 Summary of All EPCA Inventory Areas – Oil and Natural Gas Resources Affected by Access Categories

## 1.0 INTRODUCTION

As the energy needs of the Nation continue to grow, the sedimentary basins in the Interior West have been identified as a significant future supply source to help meet these needs, especially for natural gas. The United States currently uses about 23 trillion cubic feet (Tcf) of natural gas annually. The U.S. produces approximately 19 Tcf of its annual natural gas demand and imports the remaining 4 Tcf. The EIA of the DOE in its *Energy Outlook 2003* reference case projects that the demand for natural gas will rise to just under 35 Tcf by 2025. The Minerals Management Service (MMS) estimated in 2000 that approximately 58 percent of our country's undiscovered natural gas resources (over 362 Tcf) lie under the Outer Continental Shelf. However, production in the shallow water areas of the Gulf of Mexico has been steadily declining – some 13 percent from 1997 through 1999. The study presented here estimates that there are 138 Tcf of natural gas resources and reserves on Federal lands in the Interior West, making it the second largest natural gas resource in the United States after the Outer Continental Shelf. This 138 Tcf is sufficient to heat all of the 55 million homes that use natural gas in the United States for 39 years.

At the same time, the Interior West is one where multiple use interests and attendant environmental issues often intersect. Multiple uses of the Federal lands in this region, which include but are not limited to grazing, forestry, recreation, wildlife habitat, open space, wilderness, rights-of-way, and minerals exploration and production often conflict with each other. The population of the region is growing rapidly, and approximately 22 million people live within 25 miles of Federal lands. Recognizing this situation, Congress directed that quantitative assessments of the Nation's Federal onshore oil and gas resources be analyzed in relation to Federal actions that inhibit access to these resources in order to add clarity to the debate and assist energy policymakers and Federal land managers in making decisions concerning oil and gas resource development.

The studies reported here were conducted to address these needs for a part of the Interior West (figure 1a), comprising the Paradox/San Juan, Uinta/Piceance, Greater Green River, and Powder River basins and the Montana Thrust Belt. About 59 million acres of Federal lands (including split estate) present among the almost 104 million acres in these study areas, were analyzed.

A full set of acronyms used in this report, as well as a glossary, can be found in Appendices 1 and 2, respectively.

### 1.1 BACKGROUND

Access to Federal lands is probably the most oft-cited issue affecting oil and gas production in the Interior West. The restrictions and leasing stipulations that constrain access to Federal lands in the region are a complicated patchwork of requirements that increase costs and delay activity. They range from areas unavailable for leasing, to areas where the minerals can be leased but the surface of the land may not be occupied in order to recover those resources. There are also limitations on drilling activities due to a variety of environmental considerations.

## **Section 1**

### **Introduction**

Recent attempts to understand the impacts of Federal land management decisions on access to oil and gas resources began with a 1999 National Petroleum Council (NPC) study. In its report<sup>1</sup> on natural gas, the NPC (an advisory committee to the Secretary of Energy) forecast that U.S. demand for natural gas would grow to 29 Tcf in 2010 and would exceed 31 Tcf in 2015.

One of the objectives of the NPC study was to collect and analyze data on land use and natural gas resources for Federal lands in the Interior West to identify opportunities for increasing natural gas supply from this area. The NPC identified the Interior West as a significant future source of gas supply to help meet the anticipated growing demand. However, the NPC also estimated that about 40 percent (137 Tcf) of the potential supply from this region is currently unavailable for leasing or is subject to surface-use access restrictions because of competing uses or environmental considerations. This analysis was based on a limited sample of Federal lands in the region. The NPC report was the first assessment of access constraints associated with Federal land use designations and related environmental stipulations in the Interior West. The report was developed through a cooperative effort of Federal agencies, including the DOE, the BLM, and the U.S. Department of Agriculture-Forest Service (USDA-FS) and industry. Representatives from State and local governments and other stakeholders also participated.

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<sup>1</sup> Meeting the Challenges of the Nation's Growing Natural Gas Demand, December 1999, available on the NPC website: <http://www.npc.org/reports/ng.html>.

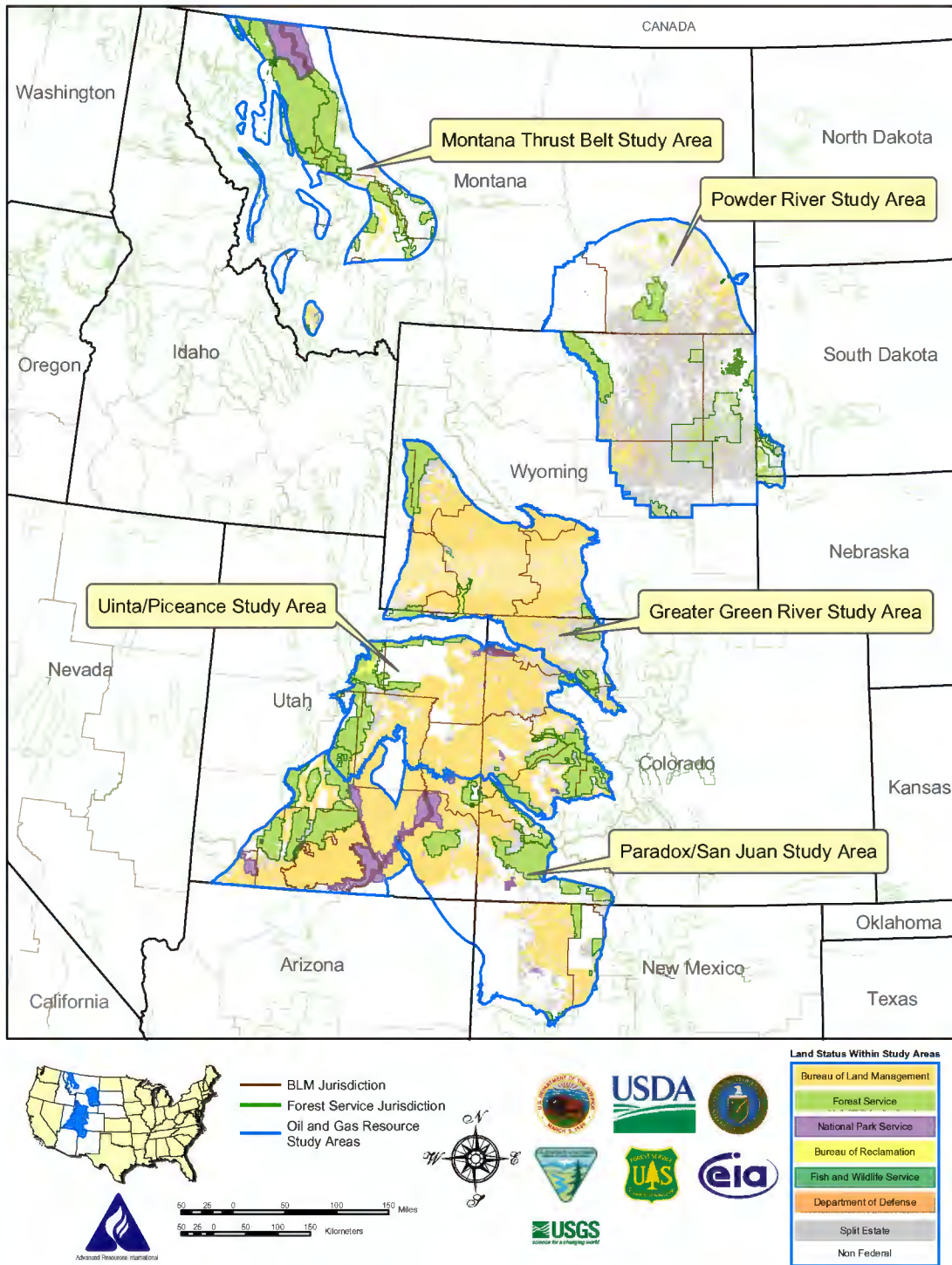


Figure 1a Outline of Study Areas Showing Federal Lands

## Section 1 Introduction

In response to the NPC recommendation, DOE, with the cooperation of the Department of the Interior (DOI) and the U.S. Department of Agriculture (USDA), embarked on an effort to assess the relationship between gas resources and land use restrictions on Federal lands. The first area studied was the Greater Green River Basin (GGRB) of Wyoming and Colorado. DOE released its report on this assessment in June 2001<sup>2</sup>. Both the NPC study and the GGRB study were substantially less comprehensive than this study and report. While the GGRB study was being conducted, Congress reauthorized the EPCA in November 2000. Section 604 of this law required a similar study, to be led by DOI in cooperation with the USDA and DOE, which was to include an analysis of undiscovered oil and natural gas resources and proved oil and gas reserves for all onshore Federal lands in the United States. The text of Section 604 and the related conference report are given below.

### 1.2 ENERGY POLICY AND CONSERVATION ACT LEGISLATION

#### SEC. 604. SCIENTIFIC INVENTORY OF OIL AND GAS RESERVES

**(a) IN GENERAL**--The Secretary of the Interior, in consultation with the Secretaries of Agriculture and Energy, shall conduct an inventory of all onshore Federal lands. The inventory shall identify--

(1) the United States Geological Survey reserve estimates of the oil and gas resources underlying these lands; and

(2) the extent and nature of any restrictions or impediments to the development of such resources.

**(b) REGULAR UPDATE** --Once completed, the USGS reserve estimates and the surface availability data as provided in subsection (a)(2) shall be regularly updated and made publicly available.

**(c) INVENTORY** --The inventory shall be provided to the Committee on Resources of the House of Representatives and to the Committee on Energy and Natural Resources of the Senate within two years after the date of enactment of this section.

**(d) AUTHORIZATION OF APPROPRIATIONS** --There are authorized to be appropriated such sums as may be necessary to implement this section<sup>3</sup>.

*Congress further emphasized the urgency of this study during the appropriation process:*

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<sup>2</sup> "Federal Lands Analysis, Natural Gas Assessment, Southern Wyoming and Northwestern Colorado, Study Methodology and Results," June 2001, available on the DOE website: [http://fossil.energy.gov/techline/tl\\_ggrb\\_gas.shtml](http://fossil.energy.gov/techline/tl_ggrb_gas.shtml).

<sup>3</sup> Energy Policy and Conservation Act Amendments of 2000, P.L. 106-469, § 604, November 9, 2000.

CONFERENCE REPORT ON H.R. 2217, DEPARTMENT OF INTERIOR AND RELATED AGENCIES APPROPRIATIONS ACT, 2002

JOINT EXPLANATORY STATEMENT OF THE COMMITTEE OF CONFERENCE

The managers agree to the following:

...In light of recent attacks on the United States that have underscored the potential for disruptions to America's energy supply, the managers believe this project should be considered a top priority for the Department<sup>4</sup>.

### 1.3 THE NATIONAL ENERGY POLICY, MAY 2001

The President's comprehensive National Energy Policy, issued May 2001, outlined more than a hundred recommendations to diversify and increase energy supplies, encourage conservation and improve energy distribution. The policy recommends a balanced approach that emphasizes renewable energy production and conservation as well as traditional fossil fuel production. Oil and natural gas was a major component of the President's policy, in particular, examining ways to increase access to these resources. The Policy noted that some Federal lands, otherwise available for leasing have been legislatively or administratively withdrawn from leasing. The Vice-President's National Energy Policy Development Group recommended:

"...that the President direct the Secretary of the Interior to examine land status and lease stipulation impediments to Federal oil and gas leasing, and review and modify those where opportunities exist (consistent with the law, good environmental practice, and balanced use of other resources).

- Expedite the ongoing Energy Policy and Conservation Act study of impediments to federal oil and gas exploration and development, and
- Review public lands withdrawals and lease stipulations, with full public consultation, especially with the people in the region, to consider modifications where appropriate<sup>5</sup>."

### 1.4 APPROACH

A Steering Committee of senior staff from the participating agencies was formed to develop an effective process to complete the inventory. The Steering Committee identified five major geographic areas that had the greatest oil and natural gas development potential for analysis in the inventory. The five areas are the Paradox/San Juan Basins, the Uinta/Piceance Basins, the Greater Green River Basin, the Powder River Basin, and the Montana Thrust Belt (figure 1a). These five study areas contain most of the natural gas and much of the oil resource under public ownership in the onshore United States. The study areas are defined by the aggregation of the USGS oil and gas resource plays for each area. The energy resource and land status and stipulation data for these areas have been incorporated into a Geographic Information System (GIS) that allows derivative mapping and statistical analysis.

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<sup>4</sup> Congressional Record, October 11, 2001, House, p. H6526.

<sup>5</sup> National Energy Policy, Report of the National Energy Policy Development Group, May 2001.

**Section 1**  
**Introduction**

## **1.5 ROLES OF THE AGENCIES**

The EPCA designated the Departments of Interior, Agriculture, and Energy as responsible for the inventory. The Steering Committee provided guidance for conducting the studies, decisions concerning critical parameters, a review of the methodology developed by the one of the firms contracted for the inventory<sup>6</sup>, and a review of the results.

The Secretary of the Interior designated the BLM to be the lead agency for the EPCA inventory. The BLM maintains the oil and gas lease stipulation information for lands under its jurisdiction, as well as land status data for all Federally owned lands within the United States.

The USGS, also a bureau of the DOI, contributed its assessments of undiscovered, technically recoverable oil and natural gas. The primary source of the oil and gas resource information used in this study was the USGS National Assessment of Oil and Gas Resources.

The Secretary of Agriculture designated the USDA-FS, its primary land management agency, to contribute its information regarding oil and gas lease availability and leasing stipulations for lands within the National Forest System.

The DOE, as author of the above-mentioned GGRB report, contributed its expertise and experience in guiding the design and analysis process for the EPCA inventory. DOE's EIA contributed its analysis of proved reserves estimates for Federal lands.

During the course of this study, members of the EPCA Steering Committee and contract personnel visited field offices within the various basins. BLM and USDA-FS personnel from over 70 offices (table 1a) participated in these visits. The purpose of these visits was to inform BLM and USDA-FS officials about the studies and to solicit input concerning lease stipulations and other issues of concern regarding oil and gas development. Data collection was performed during and following the field visits.

## **1.6 INTENDED USE**

The EPCA inventory has been designed to be useful to a wide range of interests. In a broad sense, it gives a picture of where oil and gas is estimated to occur and an idea of what statutory and administrative constraints limit exploration and development. The EPCA inventory can be used by land management agencies to identify areas of high resource potential and then to examine land management decisions that affect access to those resources on Federal lands. Both the public and the land managers will have information about the magnitude of oil and natural gas losses due to access limitations which may be utilized in conjunction with other information about other resource values and the environment.

The highly detailed stipulation data, brought together here for the first time, can be used in conjunction with the resource data by Congress, industry, environmental organizations, and other interested parties for a variety of analyses. Land withdrawals and oil and gas lease stipulations are designed to protect or mitigate adverse impacts to other valuable land resources. Land management agencies can analyze this information together with existing policies and procedures

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<sup>6</sup> The principal firms contracted for the EPCA inventory were Advanced Resources International, Arlington, VA, and Premier Data Services, Denver, CO.

and look for opportunities to improve and enhance the decisions in their land use planning, leasing, and permitting processes. Agencies also can use this information to prioritize the need for additional data and analyses, and to identify where opportunities may exist for improving access to oil and gas resources. Overall, the EPCA inventory will provide additional information to help resolve development issues. It can help land management agencies to be more responsive to the needs of their customers.

The primary product of the EPCA inventory is a GIS database composed of many layers of geographic data referenced by longitude and latitude. An important caution applies to the use and interpretation of the undiscovered energy resources.

The caution is that the *precise* locations of undiscovered oil and natural gas resources are uncertain. Without extensive exploratory drilling, the assessment process is highly probabilistic. Therefore, specific assumptions were made concerning the undiscovered oil and natural gas resources within the inventory area. Over the last several decades, the USGS methodology has been the government's standard for oil and gas resource estimation. The assessment process is a peer-reviewed statistical process that takes into consideration all available information to gain an understanding of the petroleum geology of the provinces being assessed. The USGS geologists using this information define the number of potential oil and gas plays within the provinces. The geologist then develops a probability distribution, which estimates the likelihood that a certain number and size of oil and natural gas accumulations are present within the province. There is additional uncertainty regarding the likelihood that a certain volume of oil and natural gas within each play is present. Therefore, for the purpose of the EPCA inventory it was assumed that there was a uniform distribution of the resources within a given play. It is important to note that for these reasons, the EPCA analysis does not imply that the locations of accumulations of undiscovered oil and natural gas resources are known to occur under specific land parcels.

## 1.7 PRODUCTS/FUTURE DIRECTION

The tables, data, maps (GIS products), and this summary report, which describes the methodology, applied standards, results, and land access issues, are available on CD-ROM and from the DOI (<http://www.doi.gov>) or BLM website (<http://www.blm.gov/>).

EPCA Section 604 requires that all Federal lands of the onshore United States be inventoried. The Steering Committee anticipates that the EPCA inventory will be expanded in the future to additional areas where Federal lands overlie undiscovered resources, ultimate recovery appreciation (reserves growth), and proved oil and gas reserves. The information and analysis for already-studied areas will be updated as sufficient new information warrants.



**Section 1**  
**Introduction**

<b>Paradox/San Juan Study Area</b>	<b>Greater Green River Study Area</b>
Albuquerque, NM BLM Field Office	Ashley NF
Ashley NF	BLM Wyoming State Office
Bureau of Reclamation	Bridger-Teton NF
Carson NF	Bureau of Reclamation
Cedar City, UT BLM Field Office	Fishlake NF
Cibola NF	Kemmerer, WY BLM Field Office
Dixie NF	Lander, WY BLM Field Office
Durango, CO BLM Field Office	Little Snake, CO BLM Field Office
Farmington, NM BLM Field Office	Medicine Bow-Routt NF
Fishlake NF	Pinedale, WY BLM Field Office
Grand Junction BLM Field Office	Rawlins, WY BLM Field Office
Grand Mesa/Uncompahgre/Gunnison NF	Rock Springs, WY BLM Field Office
Grand Staircase-Escalante National Monument	<b>Powder River Study Area</b>
Kanab, UT BLM Field Office	Big Horn NF
Manti-La Sal NF	Billings, MT BLM Field Office
Moab, UT BLM Field Office	BLM Montana State Office
Monticello, UT BLM Field Office	BLM Wyoming State Office
Price, UT BLM Field Office	Black Hills NF
Richfield, UT BLM Field Office	Buffalo Gap National Grasslands
Rio Grande NF	Buffalo, WY BLM Field Office
San Juan NF	Casper, WY BLM Field Office
Santa Fe NF	Custer NF
St. George, UT BLM Field Office	Miles City, MT BLM Field Office
Uncompahgre, CO BLM Field Office	Nebraska NF
<b>Uinta/Piceance Study Area</b>	Newcastle, WY BLM Field Office
Ashley NF	Oglala National Grasslands
BLM Utah State Office	South Dakota BLM Field Office
Bureau of Reclamation	Thunder Basin National Grasslands
Fishlake NF	<b>Montana Thrust Belt Study Area</b>
Glenwood Springs, CO BLM Field Office	Beaverhead-Deerlodge NF
Grand Junction, CO BLM Field Office	Bitterroot NF
Grand Mesa/Uncompahgre/Gunnison NF	BLM Montana State Office
Gunnison, CO BLM Field Office	Bureau of Reclamation
Little Snake, CO BLM Field Office	Butte, MT BLM Field Office
Manti-La Sal NF	Dillon, MT BLM Field Office
Medicine Bow-Routt NF	Flathead NF
Moab, UT BLM Field Office	Gallatin NF
Price, UT BLM Field Office	Helena NF
Richfield, UT BLM Field Office	Kootenai NF
Salt Lake, UT BLM Field Office	Lewis and Clark NF
Uinta NF	Lewistown, MT BLM Field Office
Uncompahgre, CO BLM Field Office	Lolo NF
Vernal, UT BLM Field Office	Missoula, MT BLM Field Office
White River NF	
White River, CO BLM Field Office	

*NF = National Forest*

**Table 1a**

**BLM and Forest Service Offices Contacted for the Inventory**

## 2.0 METHODOLOGY

The Paradox/San Juan, Uinta/Piceance, Greater Green River, and Powder River basins, and the Montana Thrust Belt, compose the five study areas in this inventory. They were delineated by the aggregation of oil and/or natural gas resource plays<sup>1</sup> in these basins as defined by the USGS National Assessment of Oil and Gas Resources. Resource play boundaries and oil and gas resource estimates within the plays were obtained in GIS format from the USGS. These plays were aggregated in a GIS to create a resource density map layer for each study area.

Land status was compiled from the “Status” dataset from BLM’s land records database to generate GIS maps for the analyses. Oil and gas leasing stipulation data were obtained for each jurisdiction from BLM Field Offices and USDA-FS Offices in the study areas. Most of the data were available in GIS format; some existed only as hardcopy and had to be digitized to create GIS digital map files.

Stipulations attached to oil and gas leases currently in effect are not maintained in an automated system and therefore some existing stipulations may not have been used in this inventory. The stipulations used are primarily those contained in the National Forest Plans and BLM Resource Management Plans in effect as of the date of this inventory (August 2002), and are those applied when new oil and gas leases are issued. To the extent that current leases were issued under, and are stipulated according to an existing land use plan, the inventory reflects an accurate situation. Older leases issued before the relevant plan's effective date may not be stipulated accordingly. To completely characterize stipulations on existing leases, an extensive manual file search would have to be performed. However, it is reasonably accurate to consider the plan stipulations as a proxy, because the environmental conditions that necessitate stipulations often are the driver for conditions of approval that are attached to drilling permits on older leases in order to achieve the needed environmental protection.

The analyses for the EPCA inventory entailed spatial intersection (in a GIS) of oil and gas resource information with data on land status and leasing stipulations. Because stipulations are conditions that are attached to oil and gas leases for environmental protection and other reasons, they are subject to change over time. This inventory represents a "snapshot in time" of the conditions present within the study areas. The inventory also takes into account how leasing stipulations are implemented in practice by Federal land managers by considering the effect of directional drilling and the frequency with which exceptions to the stipulations are granted.

Additional factors that affect oil and gas exploration and development on Federal lands generally cannot be quantified geographically prior to the receipt of a specific drilling application, nor are there requisite data available for quantitative analysis. These include:

- Protection for threatened and endangered species and surveys to determine whether a lease contains habitat for such species;

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<sup>1</sup> A play is a set of known or postulated oil and gas accumulations sharing similar geologic, geographic, or temporal properties (source rock, migration pathway, timing, trapping mechanism, hydrocarbon type, etc.). For the Paradox and Uinta basins, due to overlapping plays, the EPCA study area boundaries were defined by the outline of Uinta plays. The Uinta/Piceance study areas thus contain portions of some Paradox Basin plays.

## Section 2 Methodology

- Archaeological reviews required by the National Historic Preservation Act, and related issues involving cultural resources including consultation with Native American tribes;
- Air quality impacts, especially visibility considerations in the Interior West, and resulting restrictions on activities that may affect air quality;
- Visual impacts of oil and gas operations;
- Noise from oil and gas operations;
- Conflicts between oil and gas and other mineral operations, such as coal and potash;
- Suburban encroachment on oil and gas fields and county government restrictions;
- “Sense of Place,” i.e., an emotional or spiritual attachment to certain locations which has been used as justification for designating certain areas as off limits to drilling;

Typically these requirements manifest themselves as conditions of approval attached to drilling permits following a specific analysis under the National Environmental Policy Act (NEPA). These requirements can delay or modify a planned oil and gas development activity at the permit stage and in some cases preclude it altogether. Because these requirements were not easily quantifiable, there were not included in this inventory.

The rest of this section provides a more detailed description of the EPCA inventory methodology.

### **2.1 PROCEDURES FOR COLLECTING AND ANALYZING LAND STATUS AND LEASE STIPULATIONS**

#### **2.1.1 Land Status**

For the EPCA inventory, all Federal lands<sup>2</sup> and split estate<sup>3</sup> within the study areas were examined.

##### *2.1.1.1 Sources of Land Status Data*

Land status carries with it a complex definition involving both ownership and availability of the surface and mineral estates. Inherent in a Federal mineral lease is a limited right of surface use in order to develop the mineral estate. For the purpose of this inventory, land status refers both to Federal ownership of the oil and gas mineral estate and to the availability of the Federal mineral estate for oil and gas leasing.

The source of Federal land status data is the BLM’s Land Status Database. These data, which are stored in alphanumeric format, were converted for this inventory into a GIS layer by using commercially available software. The software interpolated the legal descriptions contained in the Status Database against a public land survey GIS layer derived from either the BLM’s Geographic Coordinate Database (GCDB) or other sources such as digitized USGS 7-1/2 minute quadrangle maps.

##### *2.1.1.2 Land Status Data Preparation*

Maps of the Federal land status for the study areas are presented in figures 2a through 2e. See Appendix 3 for a more detailed description of land status data preparation.

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<sup>2</sup> Indian lands were not included in this inventory.

<sup>3</sup> Federal split estate resources are subject to the same Federal restrictions as those implemented on Federal lands because access to these resources through leasing and permitting is a Federal action.

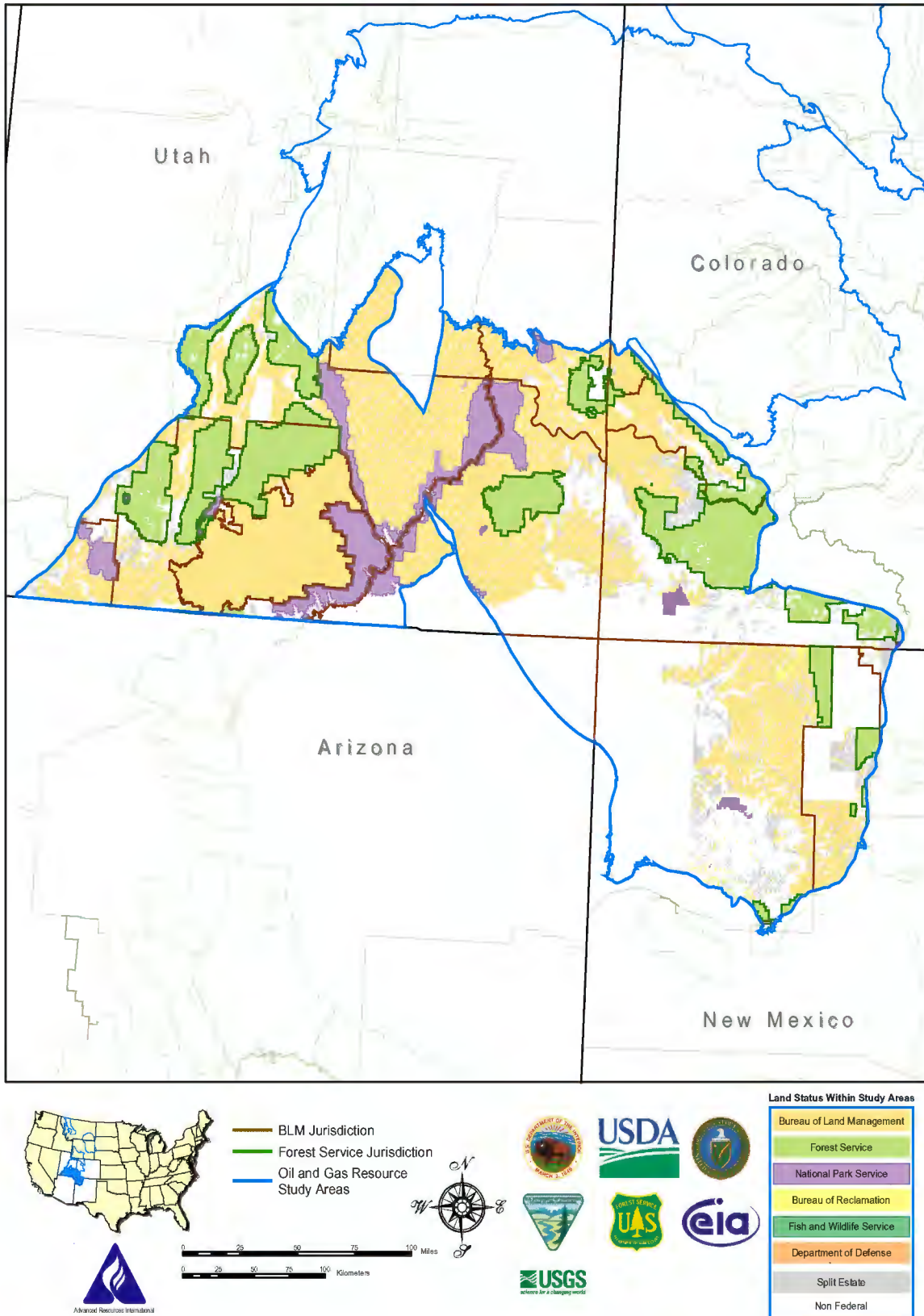
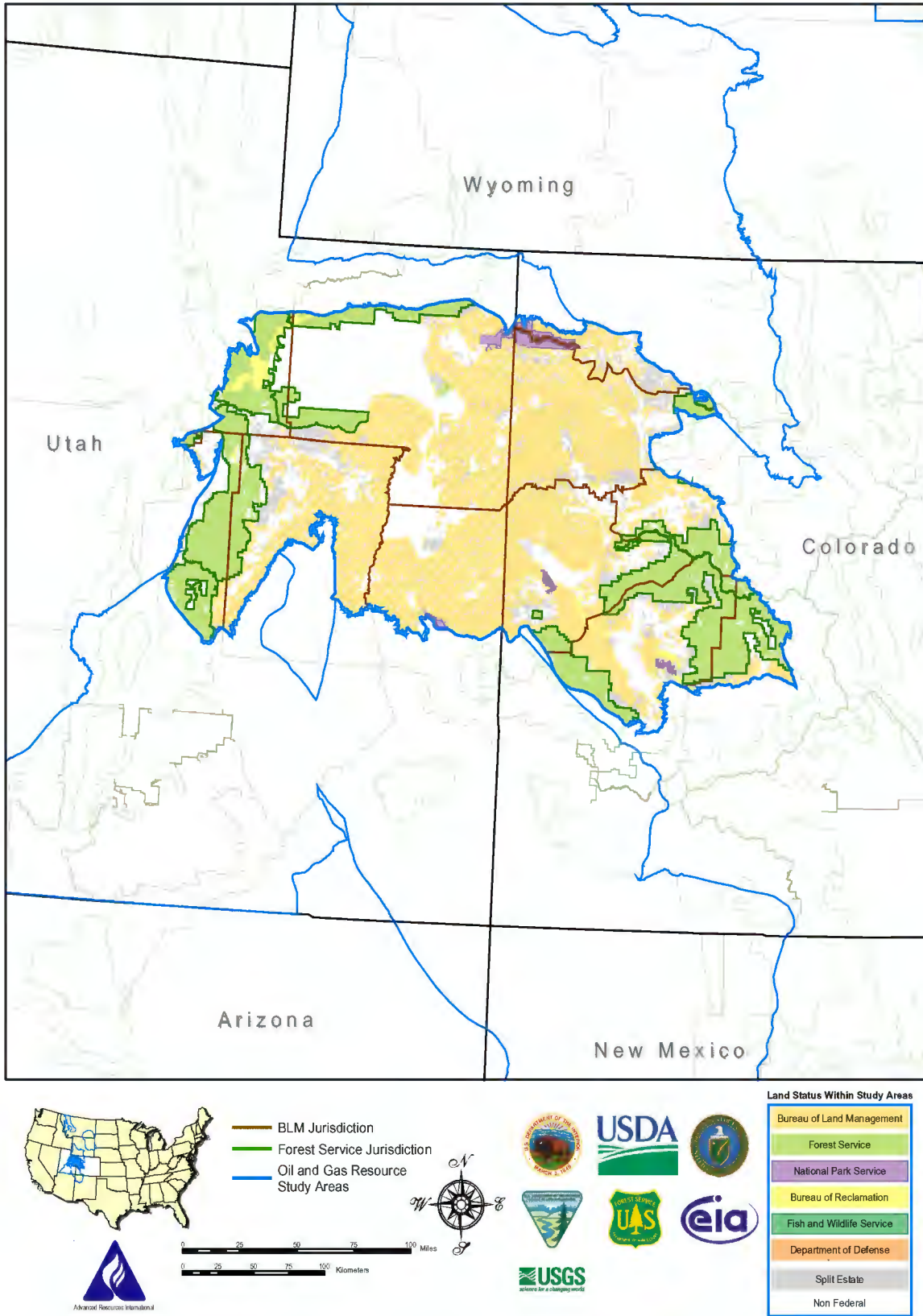


Figure 2a Federal Land Status Map -- Paradox/San Juan Study Area

**Section 2  
Methodology**



**Figure 2b** Federal Land Status Map – Uinta/Piceance Study Area

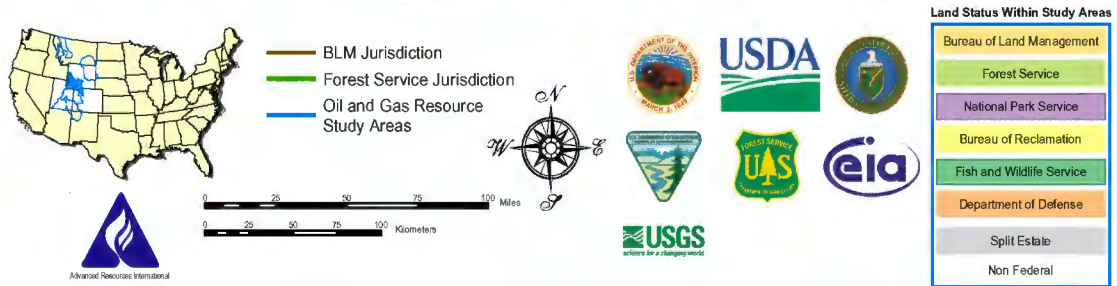
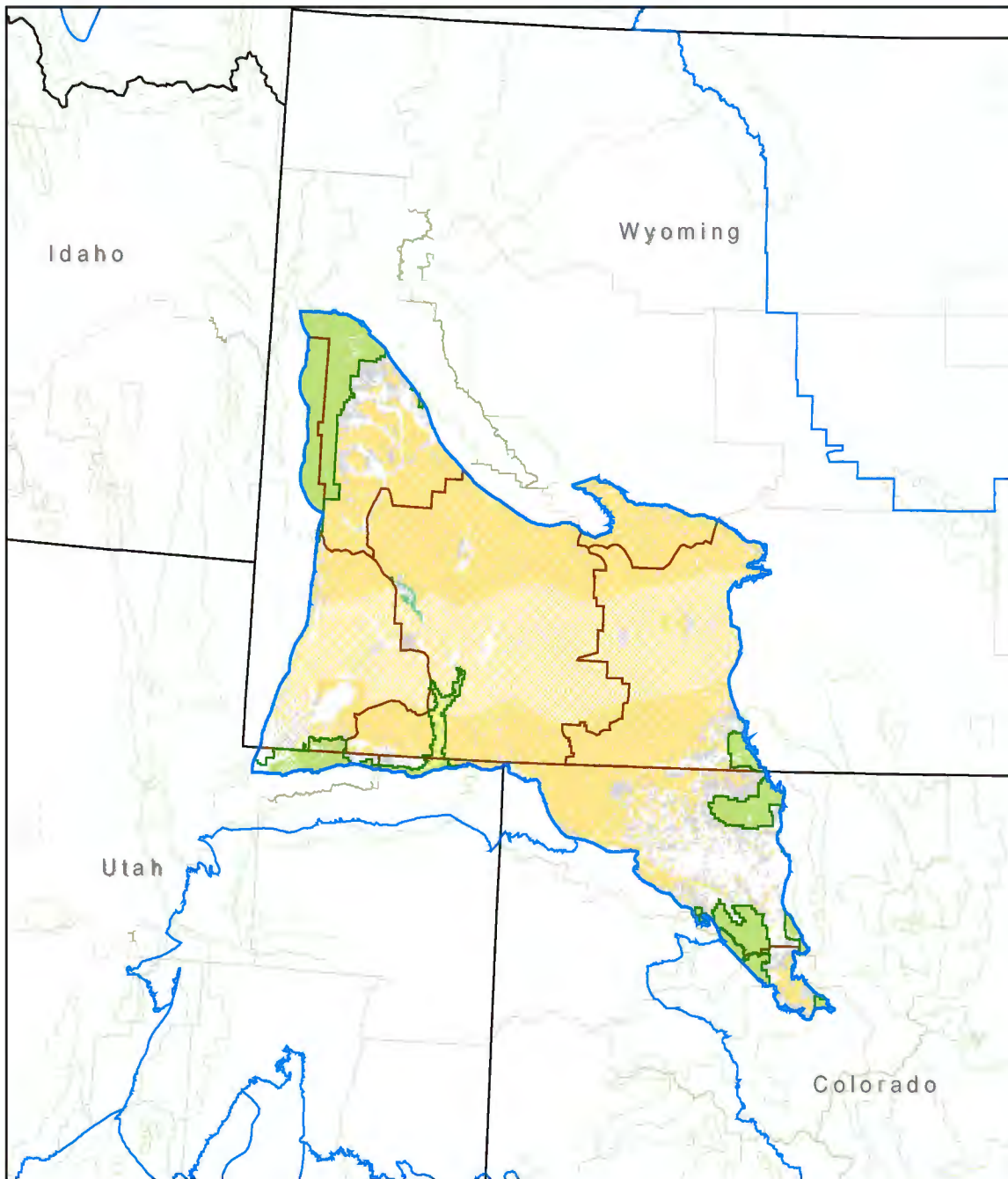
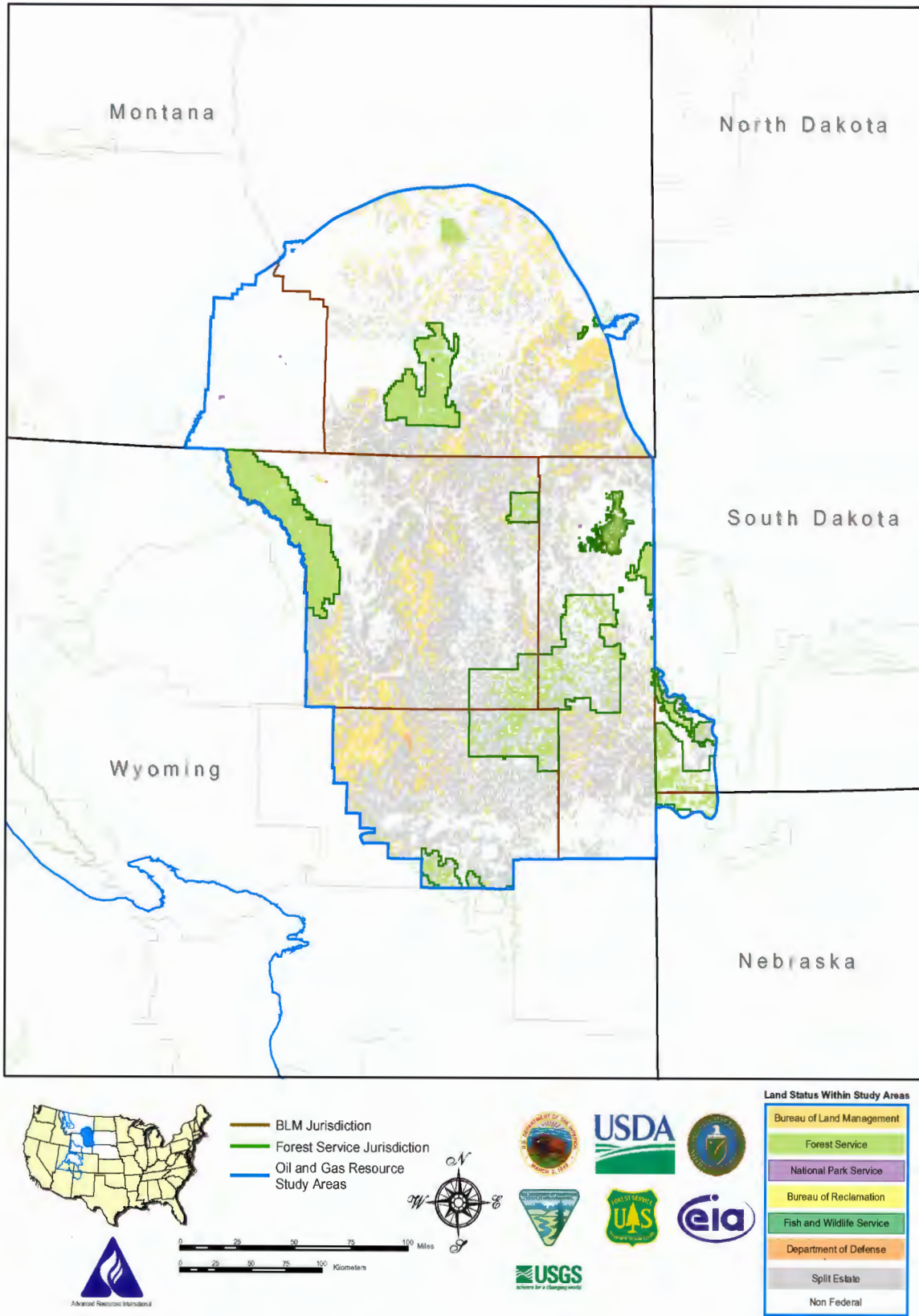


Figure 2c Federal Land Status Map – Greater Green River Study Area

**Section 2  
Methodology**



*Figure 2d Federal Land Status Map – Powder River Study Area*

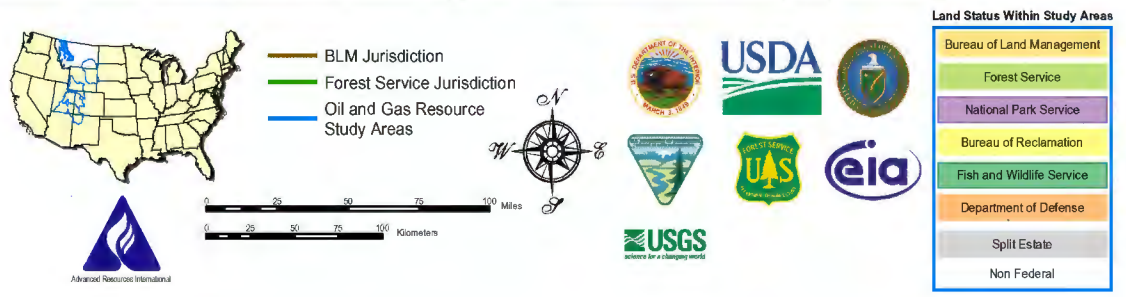
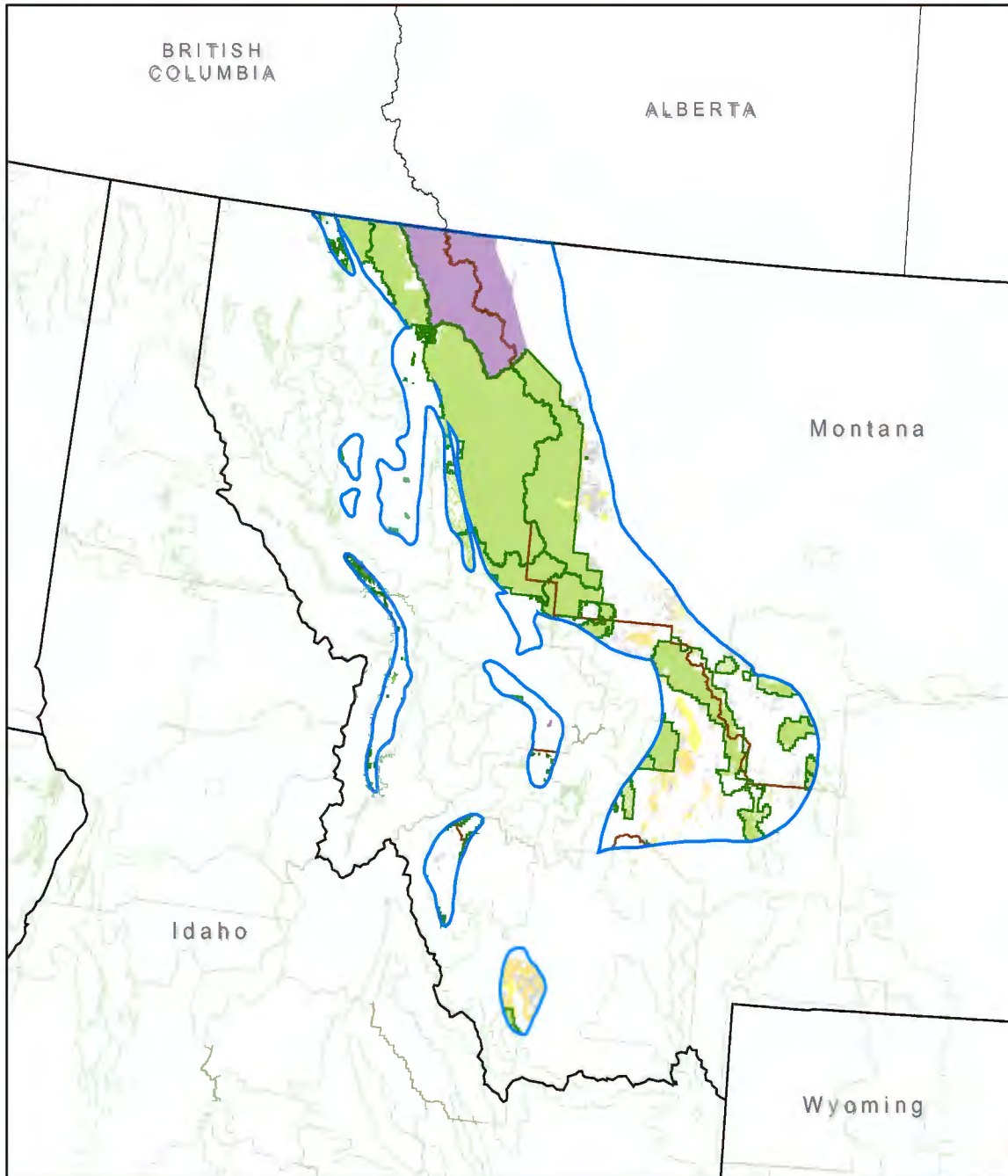


Figure 2e

Federal Land Status Map – Montana Thrust Belt Study Area



## **Section 2 Methodology**

### ***2.1.1.3 Land Status Data-Related Caveats***

The land status data are spatially accurate down to 40 acres. The BLM considers this information complete and up to date as of August 2002.

The GIS files created using the processes described in Appendix 3 were interpolated from the legal land descriptions contained in BLM's Land Record database. If a legal description referenced a small survey lot or tract by number, a nominal location was mapped through a process that referenced the Legal Land Description dataset. This dataset is limited to a 40-acre description and therefore carries a minor degree of generalization in complex areas.

This mapping process uses public land survey data derived from various sources. The spatial location of the land status parcels so derived matches the accuracy of the survey data.

### **2.1.2 Lease Stipulations**

All Federal onshore oil and gas leases contain terms and conditions specified in the standard Federal lease form. Some of these terms and conditions govern land use and resource development to a certain extent. Environmental and other considerations, which are identified during the land use planning process, determine the need for additional terms and conditions, also known as stipulations. For example, a lease may contain a stipulation that prohibits surface disturbance where land slopes exceed 35 percent. These stipulations may represent constraints to the exploration for and development of oil and natural gas on Federal lands.

#### ***2.1.2.1 Sources of Lease Stipulation Data***

Oil and gas lease stipulations are derived from the surface management agency's land use plans. The BLM's planning documents are referred to as Resource Management Plans (RMPs); the USDA-Forest Service's are referred to as Forest Plans. These plans are produced and generally maintained by their respective agencies on a Field Office jurisdictional basis (in the case of the BLM), or on a National Forest/Grassland basis (in the case of the USDA-FS).

Most of the lease stipulation data are maintained by the agencies as GIS data layers (digital map files). Some offices, particularly where the planning effort pre-dated the widespread availability of GIS technology, still maintain this information in the form of hardcopy maps. These maps were digitized, stored, and analyzed as GIS layers for this inventory.

Hard copy and digital data showing the mapped lease stipulation areas were collected from BLM and Forest Service offices within the study areas (listed in Table 1a). Copies of guidance documents, such as RMPs and Forest Plans, were also obtained. Appendix 8 lists the guidance documents used in this inventory, and Appendix 9 (available on CD-ROM or website only) lists the actual stipulations themselves.

For the Paradox/San Juan, Powder River, and Montana Thrust Belt study areas, data were collected in the winter of 2001-2002. For the Uinta/Piceance study area, data were collected in the fall of 2001. For the Greater Green River (GGR) study area, data were used from the DOE's

Federal lands analysis<sup>10</sup> collected during the fall and winter of 2000-2001; these data were verified with the local BLM and USDA-FS offices and are current as of August 2002.

#### *2.1.2.2 Lease Stipulation Data Preparation*

The bulk of the data preparation consisted of the gathering, digitizing, and compiling of the gathered data in multi-layered digital map files. Federal Geographic Data Committee Standards (FGDC)-compliant supporting documentation (metadata) for the resulting GIS layers were also created<sup>11</sup>.

This inventory is limited to those Federal lands within the aggregate resource play boundaries of the five study areas, which are based on geology as defined in the USGS National Assessment of Oil and Gas Resources. The land status and stipulation digital map files, which corresponded to Federal land management agency jurisdiction boundaries, were cut to fit within each of the study area boundaries using the GIS. Data contained within the compiled digital map files were then queried for unique leasing stipulation values. The results were then saved as separate map files. Each digital map file represents a unique stipulation value.

For an example of the specific data preparation steps, see Appendix 4.

#### *2.1.2.3 Lease Stipulation Data-Related Caveats*

All stipulations for which GIS data were available from the Federal land management agencies were used in the analysis. A majority of the stipulations within the study areas were available in GIS data formats. However, supporting documentation was not generally provided with GIS files. This can lead to inaccuracies due to undocumented differences in technical parameters. Any such errors are minor in terms of the scope of the inventory.

Stipulations not available in GIS format were digitized and any resulting inaccuracies have only minor effects upon the analysis.

In a few cases neither hardcopy nor digital maps were available for certain stipulations. The result is that the ensuing analyses may underestimate the extent of restrictions on land access. This occurred for less than 10 percent of the stipulations.

The lease stipulation data are generally accurate to 40 acres. The information is considered complete and up to date as of August 2002.

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<sup>10</sup> Federal Lands Analysis, Natural Gas Assessment, Southern Wyoming and Northwestern Colorado, Study Methodology and Results, June 2001, available on the DOE website:  
[http://fossil.energy.gov/techline/tl\\_ggrb\\_gas.shtml](http://fossil.energy.gov/techline/tl_ggrb_gas.shtml).

<sup>11</sup> GIS layers from surface management agency land status, stipulations, and the analyses, as well as the associated metadata, are available on the CD-ROMs and the web sites.

## 2.2 PROCEDURES FOR COLLECTING AND ANALYZING OIL AND GAS RESOURCE DATA

### 2.2.1 Sources of Oil and Gas Resource Data

In conformance with EPCA, the volumes of undiscovered technically recoverable oil and gas resources in each oil and gas play are supplied exclusively by the USGS.

#### **Oil and gas resources occur in four categories:**

The *In-place resource* is the total volume of oil and gas thought to exist (both discovered and yet-to-be discovered) without regard to the ability to either access or produce it. Although the in-place resource is primarily a fixed, unchanging volume, the current understanding of that volume is continually changing as technology improves.

*Technically recoverable resources* are a subset of the in-place resource that includes only that oil and gas (both discovered and undiscovered) that is expected to be producible given *available* technology with no regard to current costs. Technically-recoverable resources are therefore dynamic, constantly changing to reflect our increased understanding of both the in-place resource as well as the likely nature of future technology.

*Economically recoverable resources* are a subset of the technically recoverable that includes only that oil and gas that is expected to be producible at a profit. This is a very dynamic category, changing not only with increasing knowledge and technology, but also with the rapid and sometimes unpredictable changes in economic conditions, prices, and regulation.

*Reserves* are oil and gas that has been proven by drilling and is available for profitable production. Reserves are also subject to economic conditions.

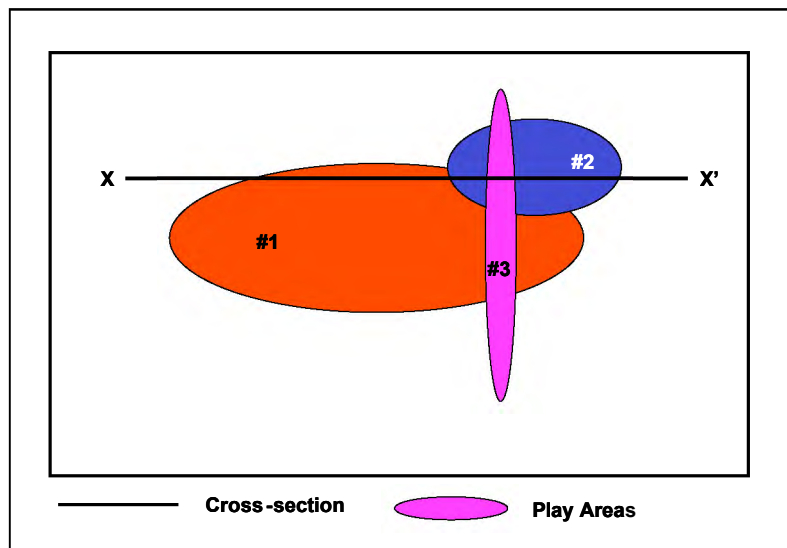
Technically recoverable resources are those hydrocarbon resources that, on the basis of geologic information and theory, are estimated to exist outside of known producing fields. This class of hydrocarbon resources is that which can be produced using current technology but without regard to economic profitability. Technically recoverable resources are the subset of resources-in-place that could be expected to be recovered over an exploration and development life cycle measured in decades.

An economic analysis of the undiscovered technically recoverable resources would require a number of assumptions about future costs of exploration and development, transportation and infrastructure that can change significantly with time. Such an analysis is a subjective exercise, and is not appropriate for Federal land use decisions or allocation. An economic analysis on a project-specific basis is most appropriate when used by the private sector in its decision making process.

The resources included in this study comprise oil, natural gas liquids (NGLs), associated dissolved (AD) natural gas, non-associated (NA) natural gas and liquids in gas reservoirs. Oil is a natural liquid of mostly hydrocarbon molecules. NGLs are liquid when produced to the surface but exist in the gas phase in the subsurface. Natural gas is a mixture of hydrocarbon gases consisting primarily of methane. Associated dissolved natural gas is that produced from oil fields, whereas non-associated natural gas is that produced "dry" from gas fields. The USGS assesses technically recoverable resources for each of these resource types, and those volumes were provided for this effort. However, for this inventory, undiscovered oil, NGL, and liquids

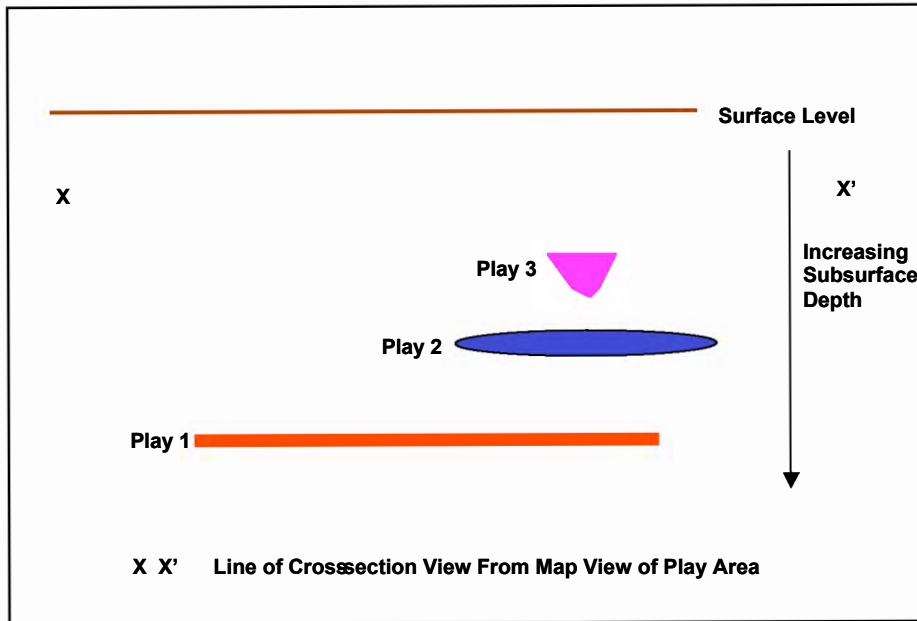
associated with natural gas reservoirs were subsequently merged into a single "Total Liquids" resource category (table 2a).

The USGS uses the resource "play" as the unit of assessment. A play is defined by a set of common geological conditions (source rock, migration, charge, traps, seals, etc.) that characterize a group of hydrocarbon accumulations in the subsurface. The USGS specifically states in the assessment process that resource volumes are not homogeneously distributed within a play. However, a homogeneous distribution of resource within a play boundary is assumed for the GIS analysis in this inventory in the absence of more specific information. Nonetheless, variation in the vertical sense is captured by the use of play stacking. The geometry of a resource play is defined by geological environments and has horizontal and vertical expression. The areal extent of resource plays is represented in map view (figure 2f) by vertically projecting their subsurface locations to the surface. In cross-section, the relative depths of individual plays are represented in figure 2g. The plays are commonly "stacked" in the subsurface so that a given surface land parcel can overlie numerous plays.



*Figure 2f*      *Map View of Resource Plays*

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*Figure 2g Cross Section of Resource Plays*

In this inventory, there are two resource play types: conventional and continuous (unconventional, which includes coalbed gas). Conventional plays contain discrete hydrocarbon accumulations often associated with hydrocarbon/water contacts. Continuous plays exist as pervasive accumulations that can cross rock unit boundaries, lack discrete borders and exhibit other atypical reservoir properties (figure 2h). The majority of the resources in the study areas are continuous in nature. Compared to conventional plays, continuous accumulations typically are more geographically extensive.

Coalbed methane (CBM), also known as coalbed natural gas, is natural gas from coal beds and is one form of continuous play. Coalbed natural gas resources are the second largest resource component in this inventory.

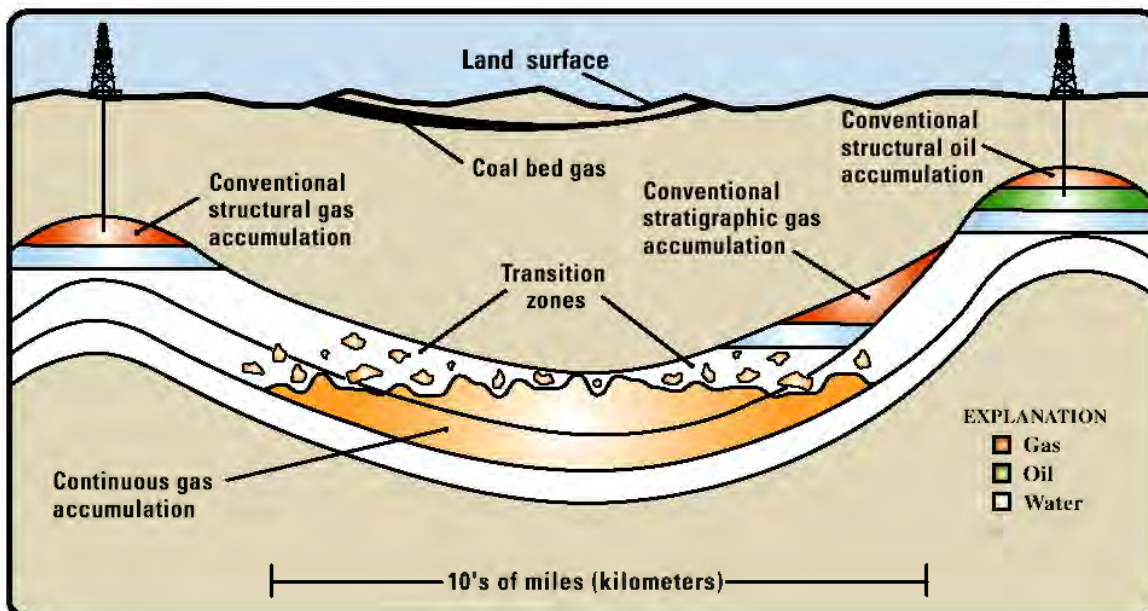


Figure 2h. Conventional vs. Continuous Accumulations

## 2.2.2 Oil and Gas Resource Data Preparation

The USGS identified eighty-eight discrete plays of oil and natural gas resources in the EPCA inventory areas. The mean probabilistic estimates of hydrocarbon resource volumes for each USGS-defined play were utilized for this inventory (Table 2a).

For this inventory, an important simplifying assumption was made that the oil and gas resources are evenly distributed within each resource play area. Therefore, resource volume is calculated to be proportional to surface area within each play. A resource density map for each basin was created in the GIS by a spatial summation of the oil and gas volumes contributed by each resource play. The densities are expressed as thousand cubic feet (MCF) of gas per acre and barrels (BBL) of oil per acre.

The products of the oil and gas resource data preparation work are maps of hydrocarbon volumes, projected to the surface. These maps depict areas of varying potential resource richness based on play resource volumes and play stacking. The distributions of undiscovered technically recoverable resources are shown by study area for liquids in figures 2i through 2m and for gas in figures 2n through 2r. See Appendix 5 for a more detailed description of the USGS methodology for the assessment and allocation of undiscovered oil and gas resources.

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USGS Province Name	USGS Code	USGS Play or Assessment Unit Name	Play Type	Total Liquids** (MMBbl)	Total Natural Gas*** (Bcf)
Paradox Basin	2101	Buried Fault Blocks, Older Paleozoic	Conventional	62	292
Paradox Basin	2102	Porous Carbonate Buildup	Conventional	192	482
Paradox Basin	2103	Fractured Interbed	Continuous	242	194
Paradox Basin	2104	Permian-Pennsylvanian Marginal Clastics	Conventional	3	56
Paradox Basin	2105	Salt Anticline Flank	Conventional	20	396
Paradox Basin	2106	Permo-Triassic Unconformity	Conventional	21	2
Paradox Basin	2107	Cretaceous Sandstone	Conventional	1	58
San Juan Basin	50220101	Tertiary Conventional Gas	Conventional	1	80
San Juan Basin	50220161	Pictured Cliffs Continuous Gas	Continuous Gas	17	5,640
San Juan Basin	50220181	Fruitland Fairway Coalbed Gas	Coalbed Gas	3	3,981
San Juan Basin	50220182	Basin Fruitland Coalbed Gas	Coalbed Gas	3	19,595
San Juan Basin	50220261	Lewis Continuous Gas	Continuous Gas	31	10,177
San Juan Basin	50220302	Gallup Sandstone Conventional Oil and Gas	Conventional	2	<.5
San Juan Basin	50220303	Mancos Sandstones Conventional Oil	Conventional	14	58
San Juan Basin	50220304	Dakota-Greenhorn Conventional Oil and Gas	Conventional	3	22
San Juan Basin	50220361	Mesaverde Central-Basin Continuous Gas	Continuous Gas	5	1,317
San Juan Basin	50220362	Mancos Sandstones Continuous Gas	Continuous Gas	76	5,116
San Juan Basin	50220363	Dakota-Greenhorn Continuous Gas	Continuous Gas	16	3,929
San Juan Basin	50220381	Menefee Coalbed Gas	Coalbed Gas	3	664
San Juan Basin	50220401	Entrada Sandstone Conventional Oil	Conventional	3	6
Uinta - Piceance Basin	50200101	Conventional Ferron Sandstone Gas	Conventional	<.5	40
Uinta - Piceance Basin	50200161	Deep (6,000 feet plus) Coal and Sandstone Gas	Continuous Gas	2	59
Uinta - Piceance Basin	50200181	Northern Coal Fairway/Drunkards Wash	Coalbed Gas	2	752
Uinta - Piceance Basin	50200182	Central Coal Fairway/Buzzards Bench	Coalbed Gas	2	537
Uinta - Piceance Basin	50200183	Southern Coal Fairway	Coalbed Gas	2	153
Uinta - Piceance Basin	50200184	Joes Valley and Messina Grabens	Coalbed Gas	2	NA
Uinta - Piceance Basin	50200185	Southern Coal Outcrop	Coalbed Gas	2	11
Uinta - Piceance Basin	50200201	Uinta-Piceance Basin Conventional Gas	Conventional	1	66
Uinta - Piceance Basin	50200261	Uinta Basin Continuous Gas Mesaverde TPS	Continuous Gas	11	7,391
Uinta - Piceance Basin	50200262	Uinta Basin Transitional Gas	Continuous Gas	2	1,493
Uinta - Piceance Basin	50200263	Piceance Basin Continuous Gas Mesaverde TPS	Continuous Gas	9	3,064
Uinta - Piceance Basin	50200264	Piceance Basin Transitional Gas	Continuous Gas	1	302
Uinta - Piceance Basin	50200281	Uinta Basin Blackhawk Coalbed Gas	Coalbed Gas	1	499
Uinta - Piceance Basin	50200282	Mesaverde Group Coalbed Gas	Coalbed Gas	1	368
Uinta - Piceance Basin	50200361	Piceance Basin Continuous Gas Mancos/Mowry TPS	Continuous Gas	2	1,653
Uinta - Piceance Basin	50200362	Uinta Basin Continuous Gas Mancos/Mowry TPS	Continuous Gas	6	3,111
Uinta - Piceance Basin	50200363	Uinta-Piceance Transitional and Migrated Gas	Continuous Gas	2	1,755
Uinta - Piceance Basin	50200401	Hanging Wall	Conventional	5	28
Uinta - Piceance Basin	50200402	Paleozoic/Mesozoic	Conventional	8	50
Uinta - Piceance Basin	50200501	Uinta Green River Conventional Oil and Gas	Conventional	11	29
Uinta - Piceance Basin	50200502	Piceance Green River Conventional Oil	Conventional	NA	NA
Uinta - Piceance Basin	50200561	Deep Uinta Overpressured Continuous Oil	Continuous Oil	43	64
Southwestern Wyoming	50370101	Sub-Cretaceous Conventional Oil and Gas	Conventional	58	1,383
Southwestern Wyoming	50370201	Mowry Conventional Oil and Gas	Conventional	12	206
Southwestern Wyoming	50370401	Hilliard-Baxter-Mancos Conventional O&G	Conventional	1	15
Southwestern Wyoming	50370501	Mesaverde Conventional Oil and Gas	Conventional	3	56
Southwestern Wyoming	50370601	Mesaverde-Lance-Fort Union Conventional O&G	Conventional	17	320
Southwestern Wyoming	50370701	Lewis Conventional Oil and Gas	Conventional	8	195
Southwestern Wyoming	50370801	Lance-Fort Union Conventional Oil and Gas	Conventional	2	246
Southwestern Wyoming	50370361	Niobrara Continuous Oil	Continuous Oil	107	62
Southwestern Wyoming	50370261	Mowry Continuous Gas	Continuous Gas	171	8,543
Southwestern Wyoming	50370461	Hilliard-Baxter-Mancos Continuous Gas	Continuous Gas	752	11,753
Southwestern Wyoming	50370561	Almond Continuous Gas	Continuous Gas	200	13,350
Southwestern Wyoming	50370562	Rock Springs-Ericson Continuous Gas	Continuous Gas	146	12,178
Southwestern Wyoming	50370661	Mesaverde-Lance-Fort Union Continuous Gas	Continuous Gas	614	13,635
Southwestern Wyoming	50370761	Lewis Continuous Gas	Continuous Gas	541	13,536
Southwestern Wyoming	50370861	Lance-Fort Union Continuous Gas	Continuous Gas	76	7,583
Southwestern Wyoming	50370581	Mesaverde Coalbed Gas	Coalbed Gas	2	249
Southwestern Wyoming	50370681	Mesaverde Coalbed Gas	Coalbed Gas	2	27
Southwestern Wyoming	50370682	Fort Union Coalbed Gas	Coalbed Gas	2	81
Southwestern Wyoming	50370881	Lance Coalbed Gas	Coalbed Gas	2	165
Southwestern Wyoming	50370882	Fort Union Coalbed Gas	Coalbed Gas	2	943
Southwestern Wyoming	50370981	Wasatch-Green River Coalbed Gas	Coalbed Gas	2	65
Powder River Basin	3301	Basin Margin Subthrust	Conventional	21	20
Powder River Basin	3302	Basin Margin Anticline	Conventional	7	4
Powder River Basin	3303	Leo Sandstone	Conventional	81	5
Powder River Basin	3304	Upper Minnelusa Sandstone	Conventional	522	31
Powder River Basin	3305	Lakota Sandstone	Conventional	55	22
Powder River Basin	3306	Fall River Sandstone	Conventional	200	115
Powder River Basin	3307	Muddy Sandstone	Conventional	88	449
Powder River Basin	3309	Deep Frontier Sandstone	Conventional	58	193
Powder River Basin	3310	Turner Sandstone	Conventional	25	32
Powder River Basin	3312	Sussex-Shannon Sandstone	Conventional	72	54
Powder River Basin	3313	Mesaverde-Lewis	Conventional	62	58
Powder River Basin	50330101	E. Basin Margin Upper Fort Union Sandstone	Conventional	2	27
Powder River Basin	50330181	Wasatch Formation	Coalbed Gas	2	1,934
Powder River Basin	50330182	Upper Fort Union Formation	Coalbed Gas	2	12,132
Powder River Basin	50330183	Lower Fort Union-Lance Formations	Coalbed Gas	2	198
Powder River Basin	50330261	Mowry Continuous Oil Assessment Unit	Continuous Oil	209	198
Powder River Basin	50330361	Niobrara Continuous Oil Assessment Unit	Continuous Oil	240	227
Powder River Basin	50330461	Shallow Continuous Biogenic Gas AU	Continuous Gas	2	787
Montana Thrust Belt	50270101	Thrust Belt Conventional Gas and Oil	Conventional	134	5,761
Montana Thrust Belt	50270102	Sawtooth Range Structure Conventional O&G	Conventional	18	795
Montana Thrust Belt	50270103	Frontal Structures Conventional Oil and Gas	Conventional	68	1,192
Montana Thrust Belt	50270201	Helena Salient Conventional Oil and Gas	Conventional	15	639
Montana Thrust Belt	50270401	Blacktail Salient Conventional Oil and Gas	Conventional	6	16
Montana Thrust Belt	50270561	Marias River Shale Continuous Oil	Continuous Oil	33	111
Montana Thrust Belt	50270701	Tertiary Basins Oil and Gas	Conventional	73	124
Totals				5,510	183,204

\* All values are mean resource values from the USGS National Assessment of Oil and Gas Resources (assessment unit resources from the 2002 Update; play resources from the 1995 Oil and Gas Assessment).

\*\* Comprising oil, NGLs and liquids associated with natural gas reservoirs.

\*\*\* Comprising associated dissolved and nonassociated natural gas.

NA -- not assessed

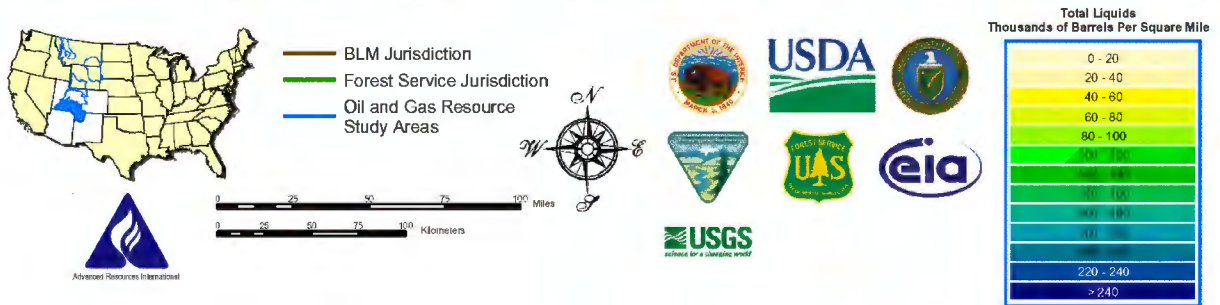
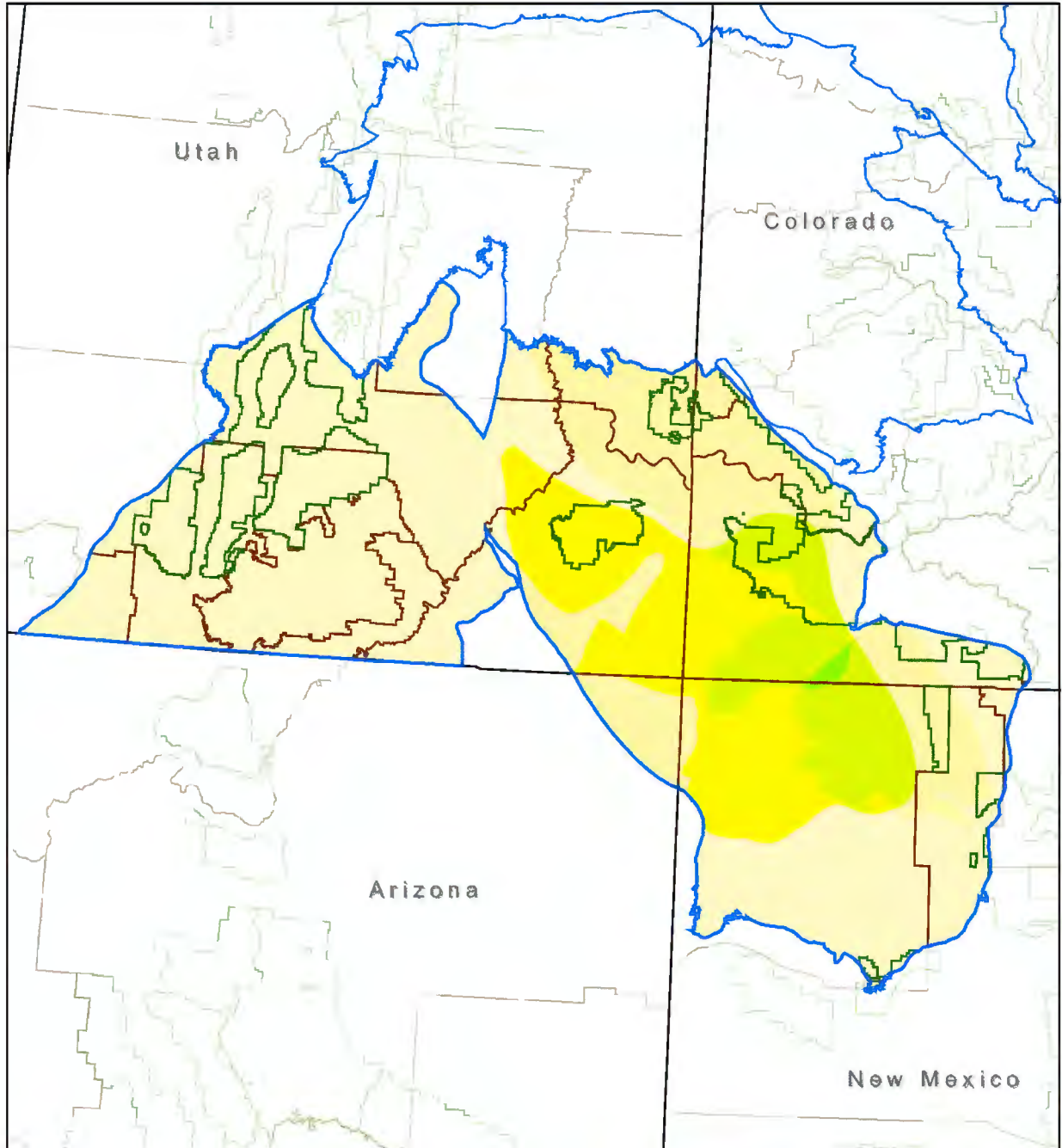
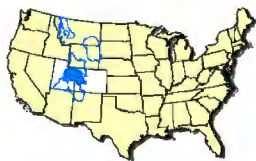
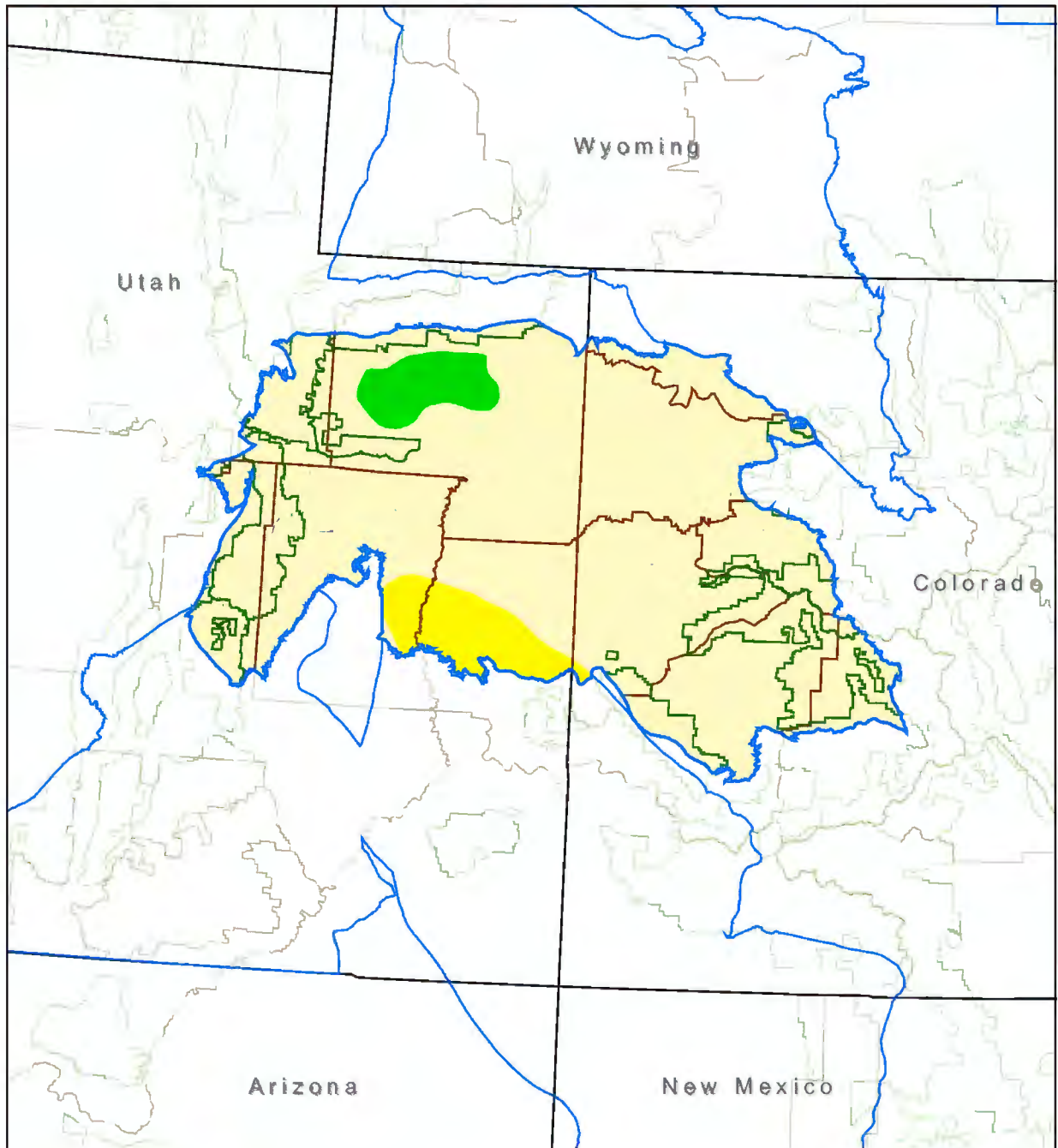


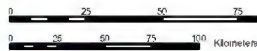
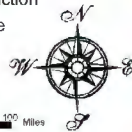
Figure 2i Total Liquids Map – Paradox/San Juan Study Area



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- BLM Jurisdiction
- Forest Service Jurisdiction
- Oil and Gas Resource Study Areas



Total Liquids  
Thousands of Barrels Per Square Mile

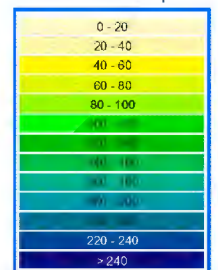


Figure 2j Total Liquids Map – Uinta/Piceance Study Area

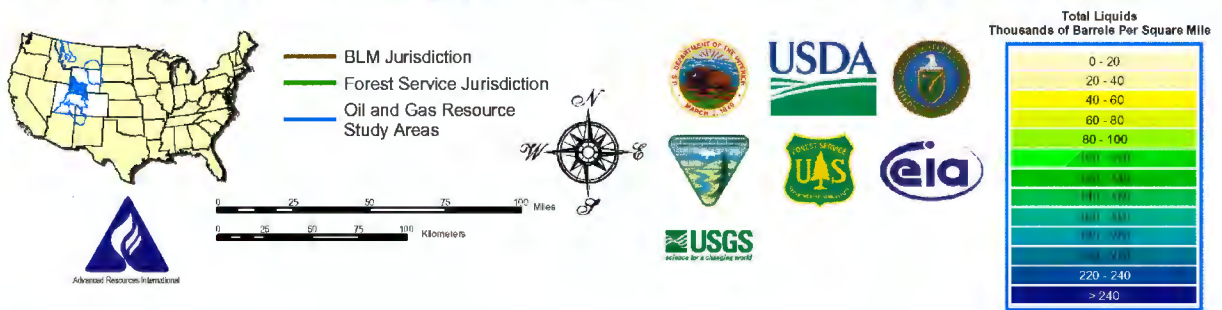
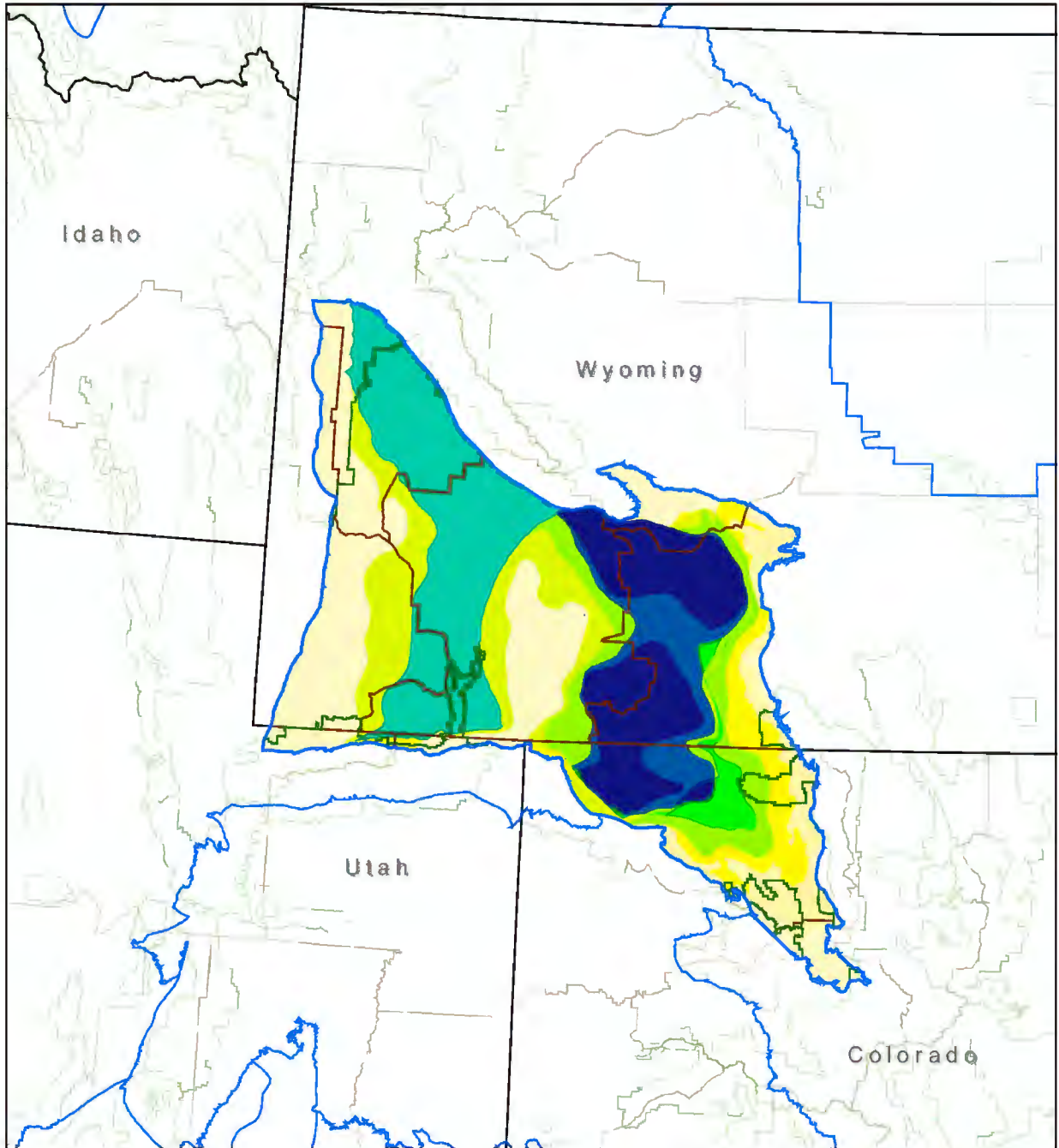


Figure 2k Total Liquids Map – Greater Green River Study Area

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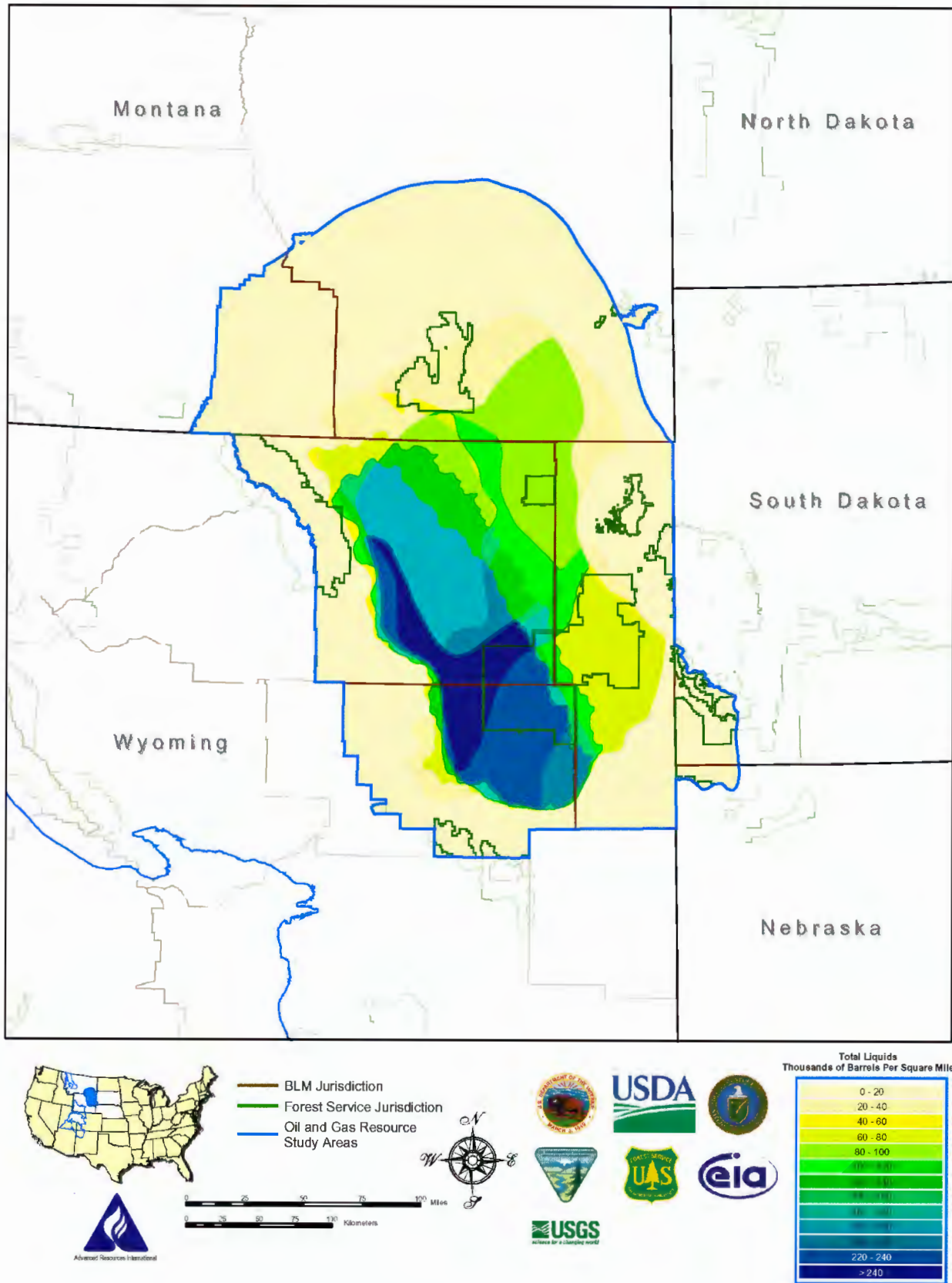


Figure 21 Total Liquids Map – Powder River Study Area

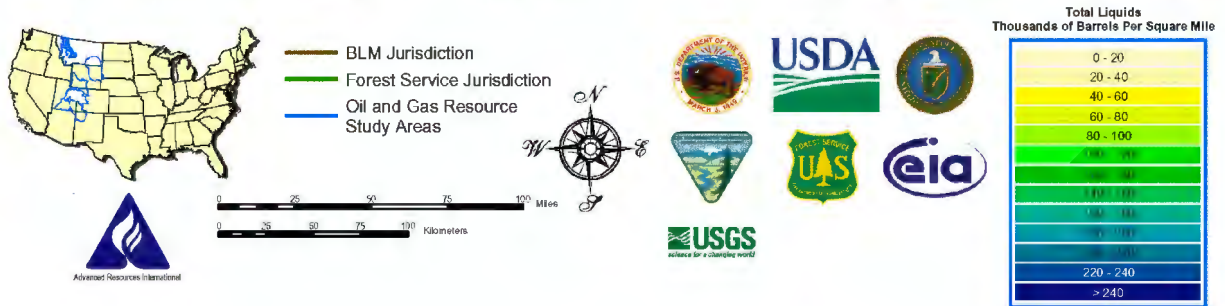
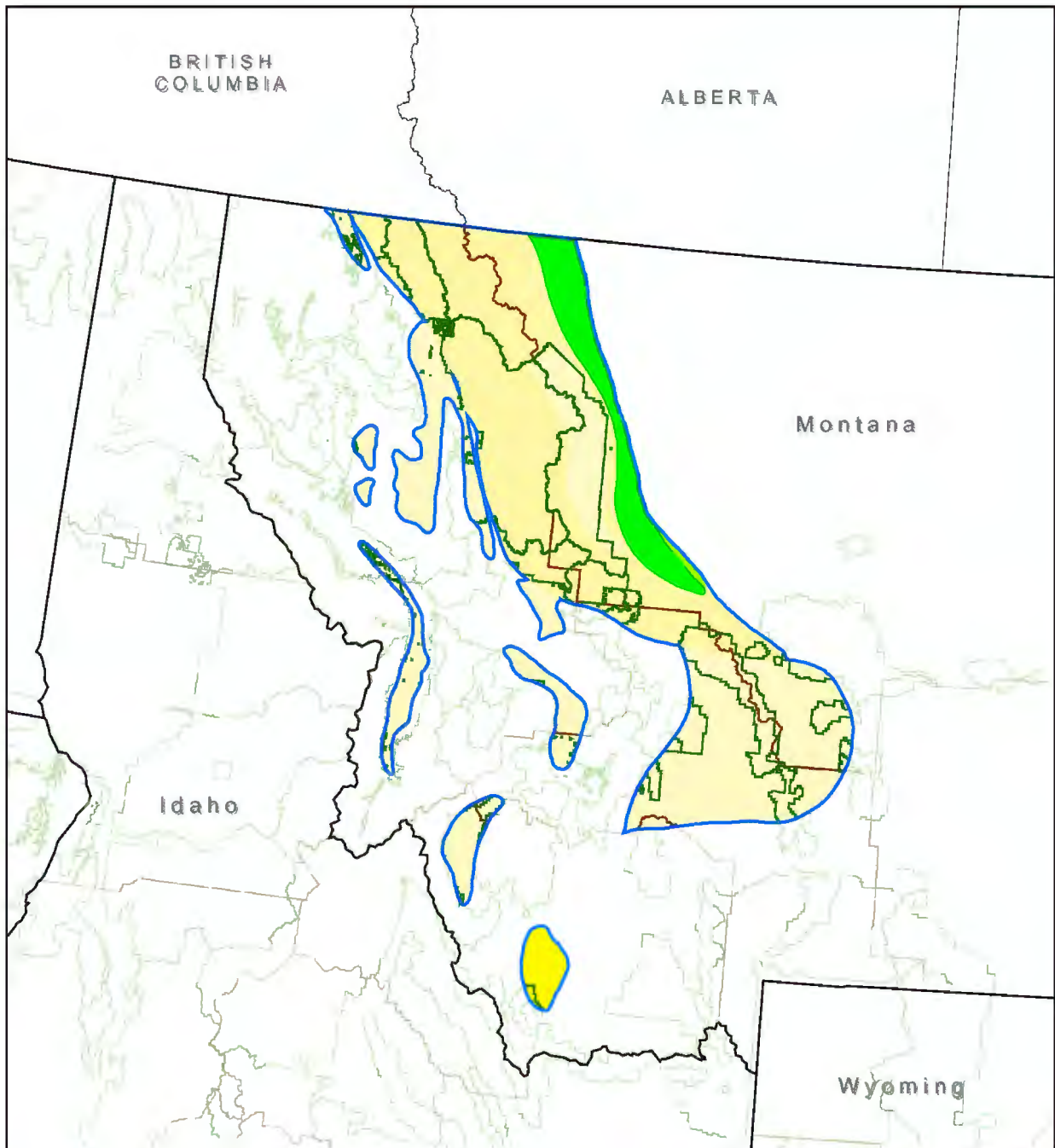
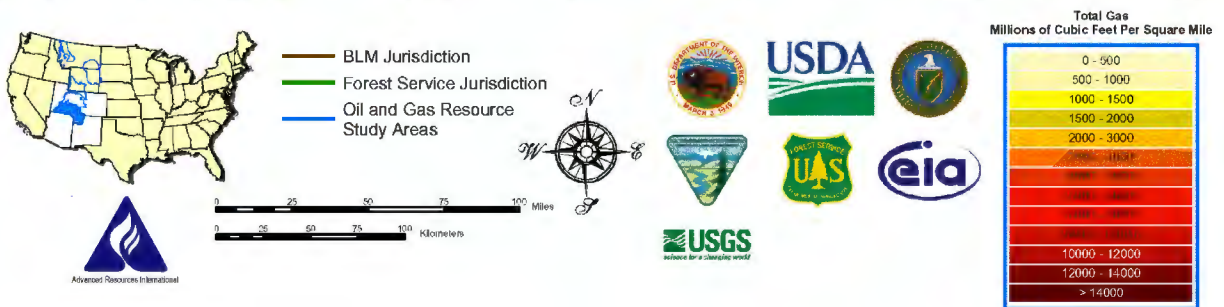
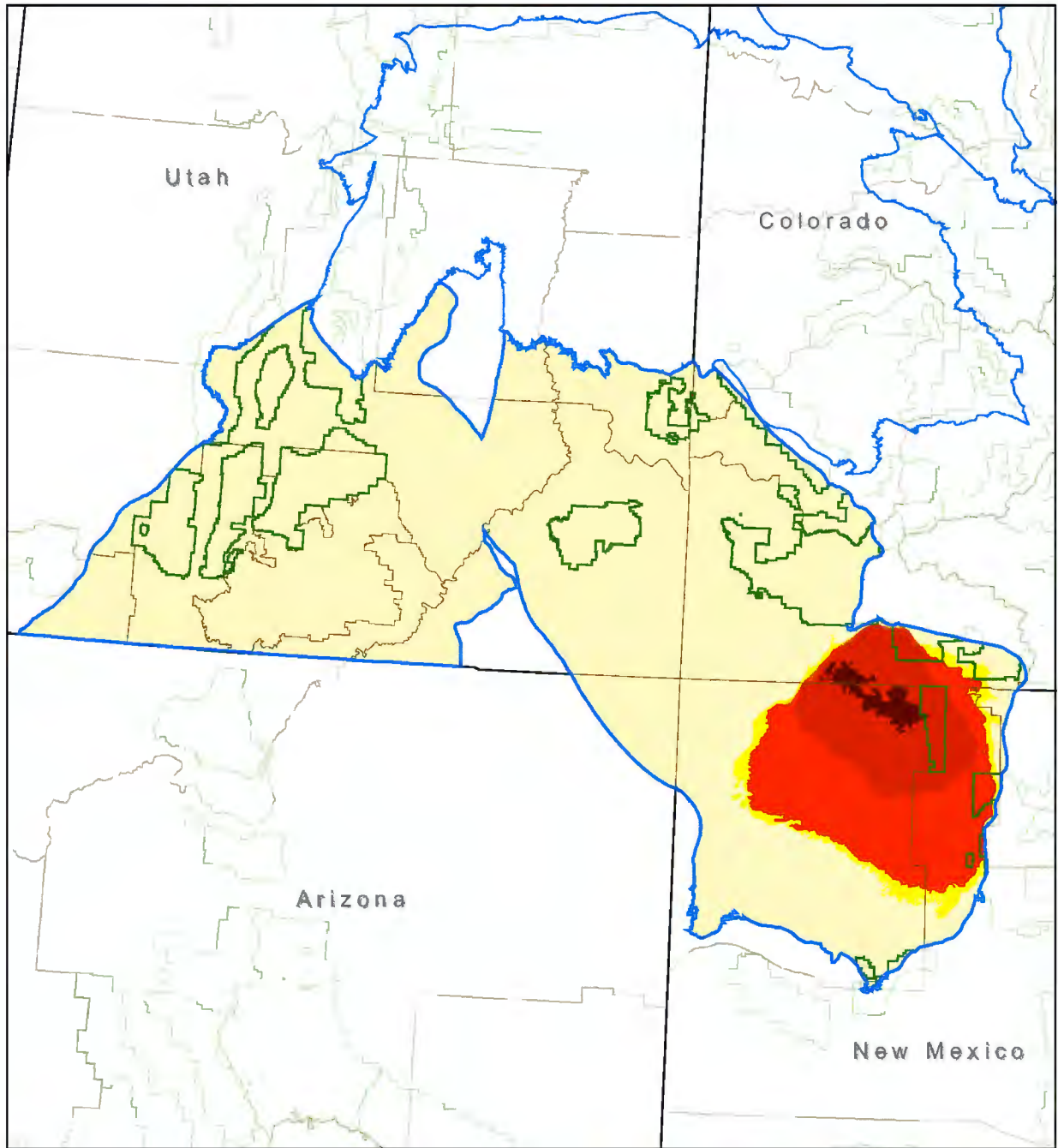


Figure 2m Total Liquids Map – Montana Thrust Belt Study Area

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**Figure 2n** Total Gas Map – Paradox/San Juan Study Area

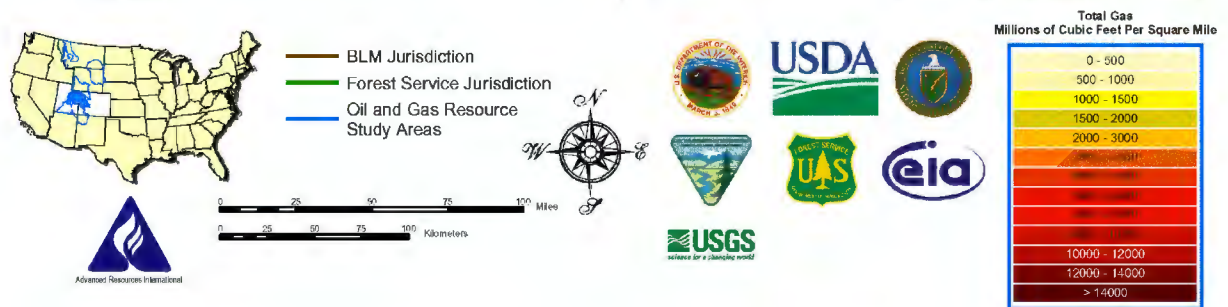
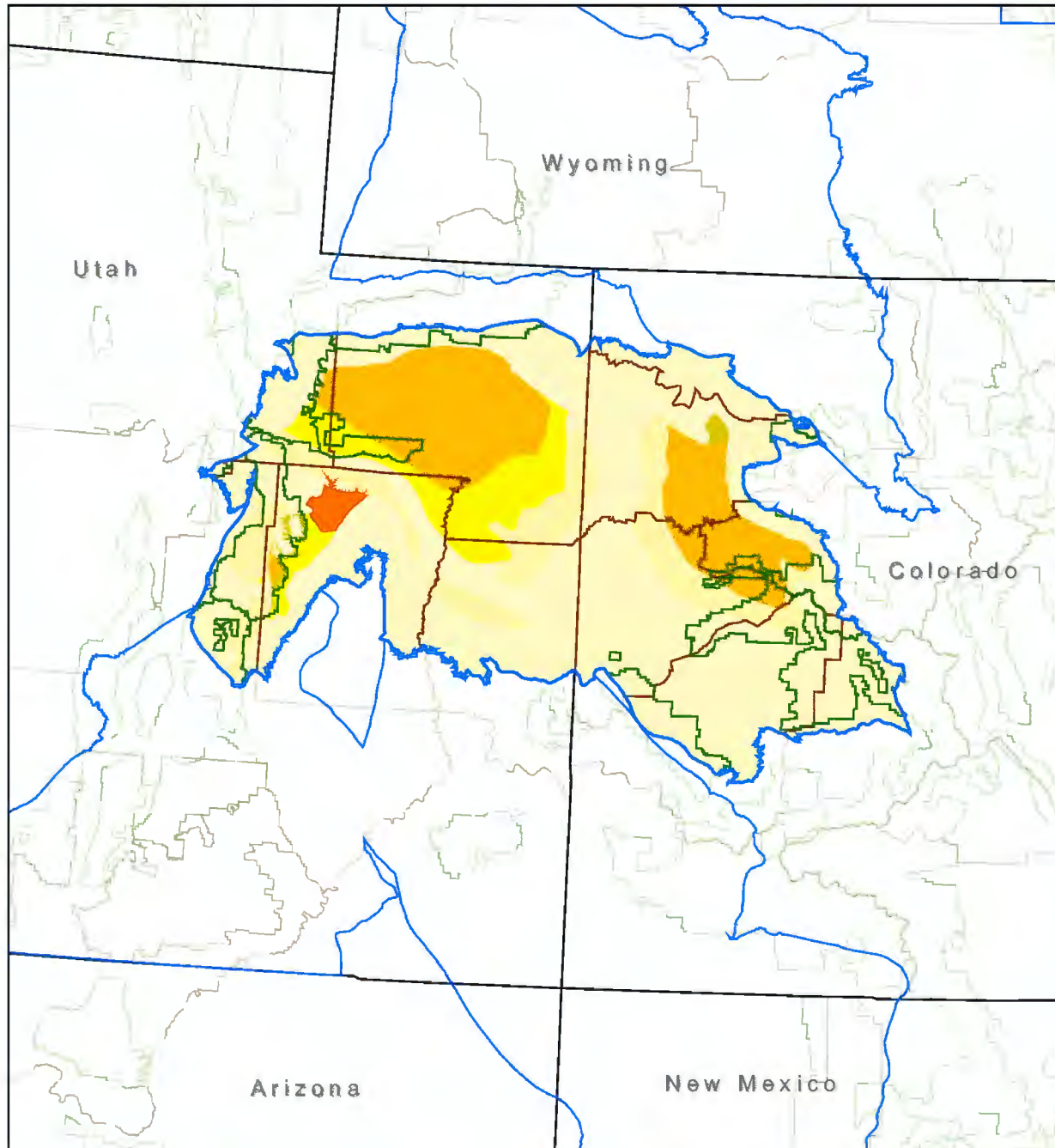
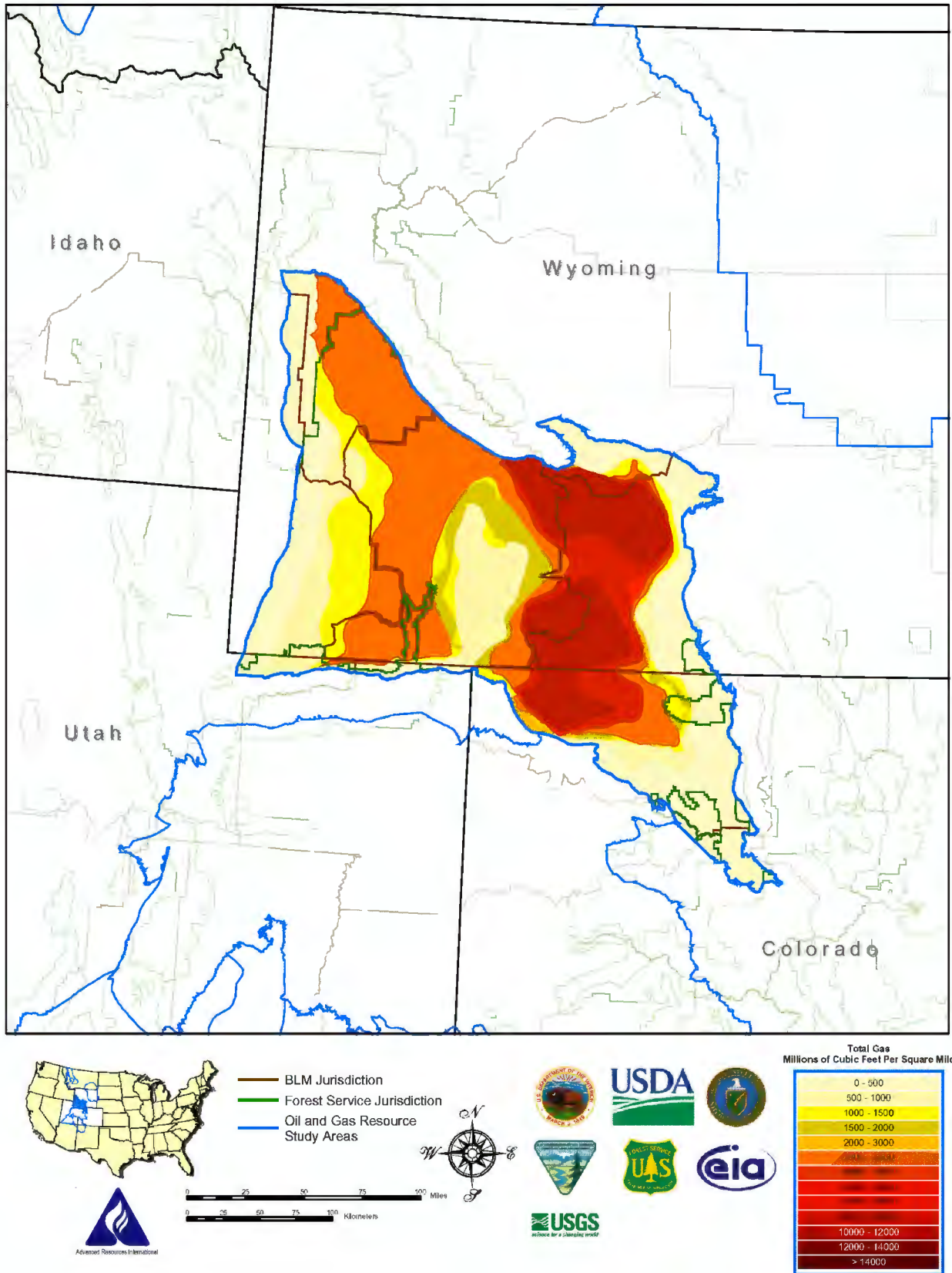
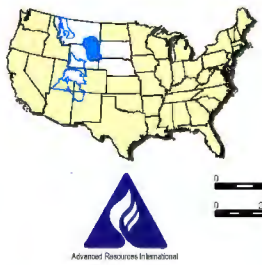
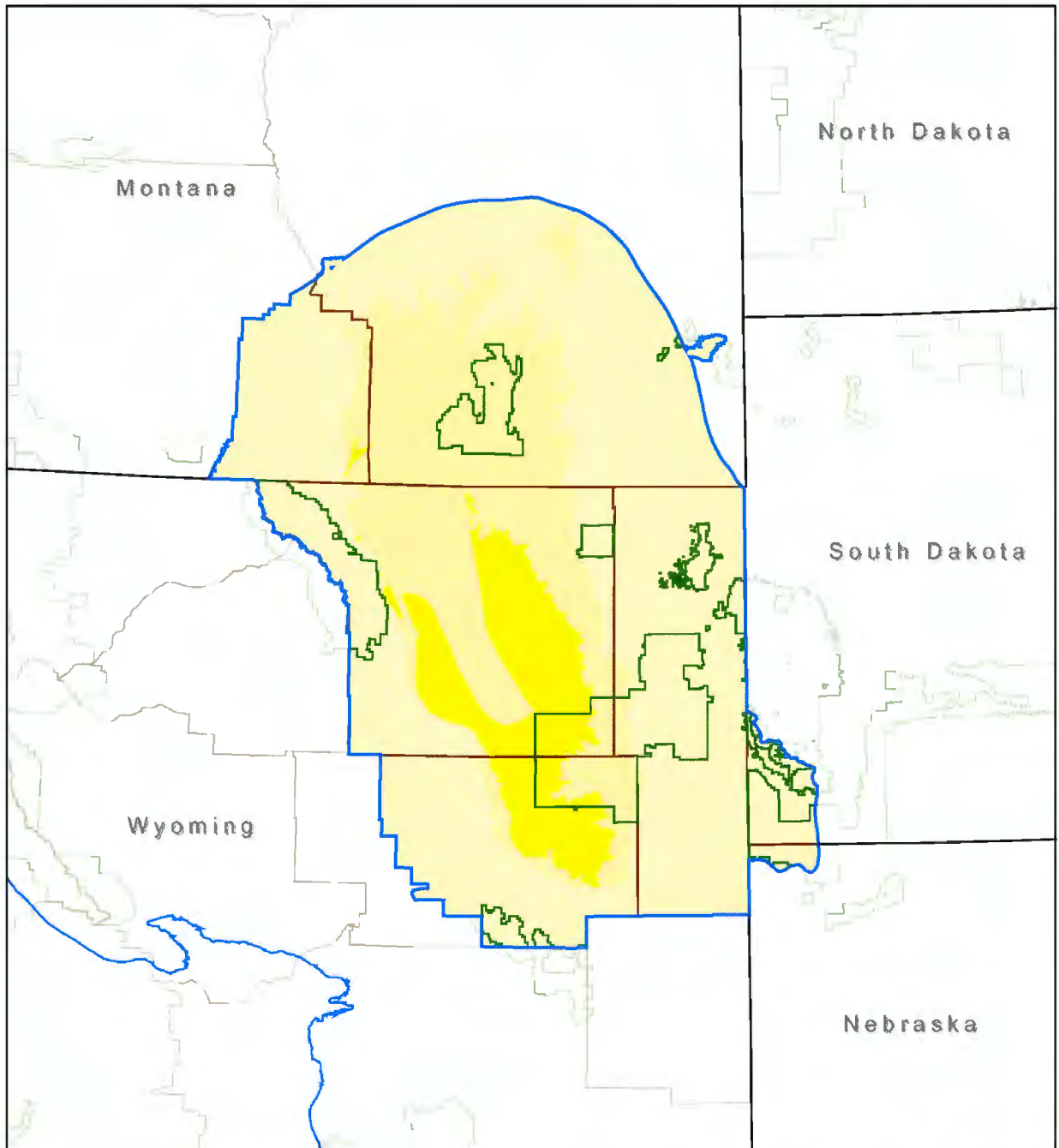


Figure 2o Total Gas Map – Uinta/Piceance Study Area

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**Figure 2p** Total Gas Map – Greater Green River Study Area



- BLM Jurisdiction
- Forest Service Jurisdiction
- Oil and Gas Resource Study Areas

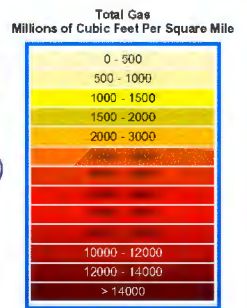
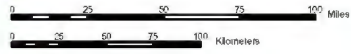
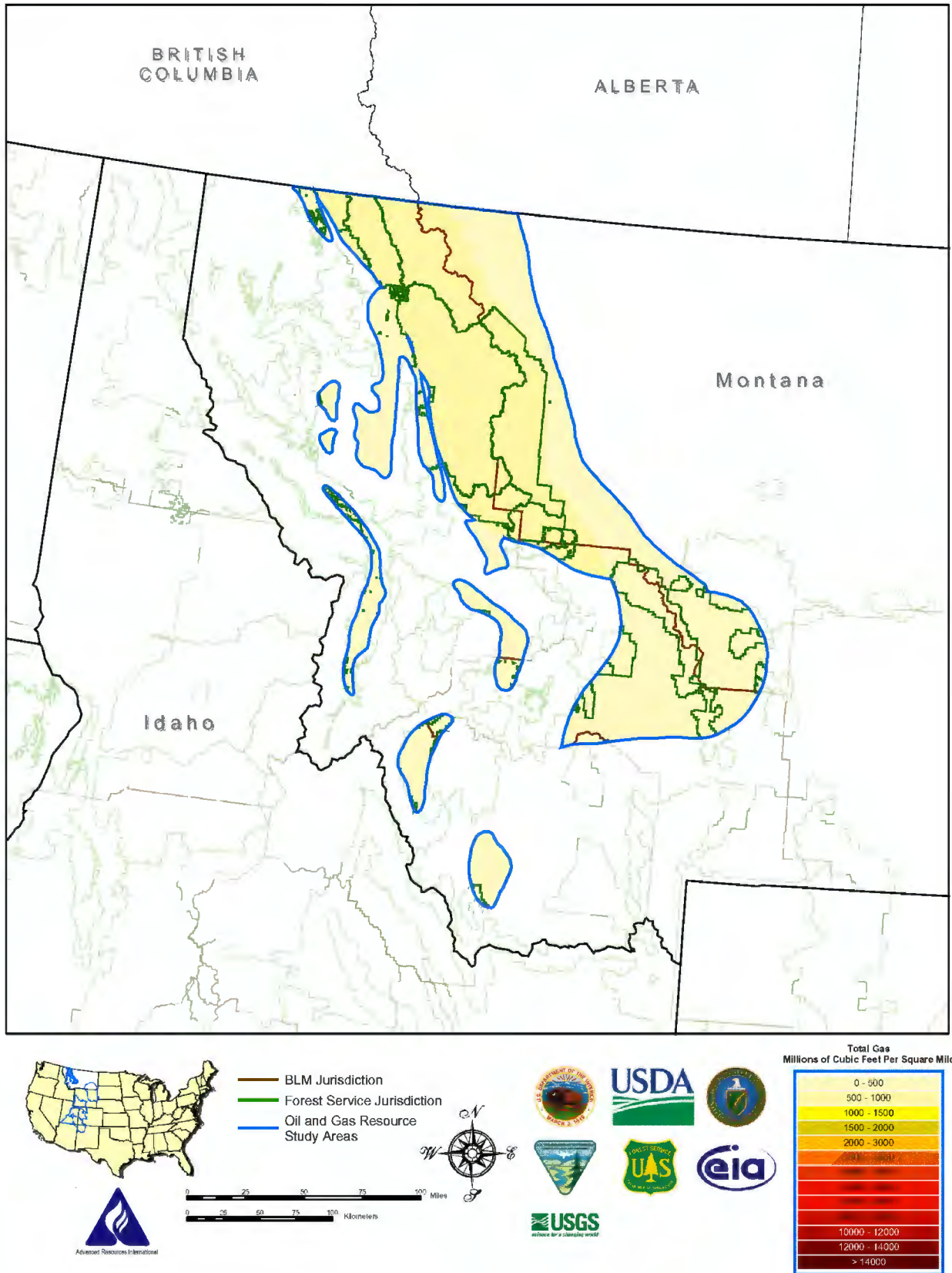


Figure 2q Total Gas Map – Powder River Study Area



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**Figure 2r** Total Gas Map – Montana Thrust Belt Study Area

### 2.2.3 Oil and Gas Resource Data-Related Caveats

The estimation of technically recoverable resources is inherently uncertain, as reflected by the fact that the USGS develops cumulative probability distributions for the resource estimates of all of its plays. These distributions are used to derive 95 percent probable (a 19-in-20 chance of that volume or more), 5 percent probable (a 1-in-20 chance of that much or more) and mean resource volumes. The mean volume, used in this inventory, represents the arithmetic average of all possible resource outcomes weighted by their probability of occurrence. Therefore, the analytical results shown here do not explicitly reflect the range of uncertainty in the resource assessments.

In addition, not all of the resource plays recognized by the USGS within the boundaries of this inventory have been evaluated, typically because there are hypothetical plays that lack sufficient supporting data to calculate resource estimates. To the extent that these plays contain significant volumes of resources, the results presented here would be different relative to a larger resource base.

Given these considerations, it should be understood that no resource assessments are set in stone. Not only is it difficult to accurately assess the resource at any one point in time, but the resource itself is constantly changing in response to the advance of technology and the evolving economic and policy conditions under which extraction is likely to occur. Nonetheless, it is of vital importance that accurate and up-to-date assessments of the potential resources are continually provided to ensure that public policy decisions are conducted with the most timely information possible.

## 2.3 PROCEDURES FOR COLLECTING AND ANALYZING PROVED OIL AND GAS RESERVES DATA

The EPCA Section 604 responsibility of the Energy Information Administration is to provide data and analysis relevant to proved reserves of crude oil, natural gas, and natural gas liquids which are associated with already discovered fields that underlie Federal onshore lands. This responsibility involves:

- provision of estimates of proved reserves for these fields at the highest possible level of detail consonant with a legal requirement to protect the confidentiality of field operators' proprietary estimates of proved reserves,
- estimation of future ultimate recovery appreciation for currently producing fields, and
- provision of inputs to the estimation of additional land access requirements that may be consequent to the expected ultimate recovery appreciation.

Proved reserves are defined as those quantities of crude oil, natural gas, or natural gas liquids that geological and engineering data demonstrate with reasonable certainty (defined as 90 percent or more probable) to be recoverable *in future years* from *known* reservoirs *under existing economic and operating conditions*. Proved reserves are, in effect, the current “inventory on-the-shelf” portion of the total resource endowment.<sup>4</sup>

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<sup>4</sup> The full technical definition of proved reserves is available on the Society of Petroleum Engineers website at [http://www.spe.org/spe/cda/views/shared/viewChannelsMaster/0,2883,1648\\_19738\\_19746\\_24741,00.html](http://www.spe.org/spe/cda/views/shared/viewChannelsMaster/0,2883,1648_19738_19746_24741,00.html)

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Estimates of future ultimate recovery appreciation (URA), sometimes referred to as “reserves growth” are not included as a part of this analysis. The URA estimate will be provided as part of a future revision to this inventory.

### 2.3.1 Sources and Data-Related Caveats of Proved Oil and Gas Reserves Data

Comprehensive deterministic estimates of the domestic proved reserves of crude oil, natural gas, and natural gas liquids are prepared annually by the EIA. These estimates are a combination of reported and statistically imputed volumes based on:

- thousands of individual proved reserves and production estimates reported annually either at the field level or at the State level as described below, submitted to EIA by a statistical sample of the operators of domestic oil and gas wells on Form EIA-23 “Annual Survey of Domestic Oil and Gas Reserves.” Of the 22,519 operators in the 2001 survey, 1,867 were included in the sample.
- all operators of active domestic natural gas processing plants who annually report their operations on Form EIA-64A “Annual Report of the Origin of Natural Gas Liquids Production.” For the 2001 survey, there were 525 active plants, all of which responded.

Only the largest oil and gas well operators (those producing 1.5 million barrels or more of crude oil or 15 billion cubic feet or more of natural gas, or both) are required to maintain and submit to EIA both proved reserves and production estimates by field for all of their operated properties. There were 172 large operators in the 2001 survey, all of which were included in the sample. Their response rate was 100 percent.

Intermediate size operators (those producing less than the largest operators but at least 400,000 barrels of crude oil, or at least 2 billion cubic feet of natural gas, or both) are required to submit production estimates by field for all of their operated properties, but are only required to submit proved reserves estimates by field when they maintain them in their records. There were 439 mid-sized operators in the 2001 survey. All were included in the sample and their response rate was also 100 percent.

Small operators are those with production less than the other limits. There were 21,908 small operators in the 2001 survey. Of these, 1,175 were sampled with certainty at an associated response rate of 98 percent and an additional 622 were randomly sampled at an associated response rate of 95 percent.

Because the EIA reserves survey is expressly designed to minimize the respondents’ reporting burden and yet provide highly reliable estimates at the State and National levels of data aggregation, the EIA does not have in its files operator-submitted, field-specific proved reserves information covering every oil or gas field in the country. For example:

- The EIA may have only partial reported proved reserves estimates for a field that has two or more operators, at least one of which is not required to report proved reserves by field.
- Especially for small fields, the EIA may not have any reported proved reserves estimates.

However, because the large and intermediate size operators tend to operate the larger fields, whereas the small operators are primarily active in the far more numerous small fields, the EIA does have in its files field-specific, operator-submitted proved reserves estimates covering about 90 percent of all estimated domestic proved reserves.

These types of deficiencies in the EIA's field-specific reserves information were satisfactorily remedied for this inventory by use of additional procedures based on either publicly available production data or reserve-to-production ratio analogs. The procedures used are detailed in Appendix 6.

Beyond the necessity to develop complete proved reserves estimates when complete operator-submitted estimates were lacking, there were two additional limitations:

(1) As collected in the EIA reserves survey, field location is at the county level. Attainment of the much more precise field locations required for this inventory's GIS-based methodology necessitated cross-correlation of the EIA's reserves data files with commercial sources of field and/or well information which provide far more precise field location data. This process involved much highly detailed, often well-by-well, work owing to the existence of non-standard field names and codes, or the occasional lack of a field name, in the commercial data sources.

(2) EIA is obligated by law to ensure the confidentiality of the data submitted by each reserves survey respondent. Within the EPCA study areas, there were many situations where a field was operated by a single operator or where one operator was heavily dominant. In such instances, EIA cannot disclose the proved reserves estimates for the field in absence of a written agreement in which the operator waives its right to confidentiality. Such agreements are exceedingly rare. Therefore, to avoid the release of confidential information while still adequately informing this inventory, EIA elected not to present field-specific proved reserves estimates even in instances where doing so would not have compromised a respondent's submission. Instead, the fields have uniformly been classified into a range of proved reserves categories that are broad enough to prevent extraction of the proved reserves estimates for any specific field. The resulting summary of proved reserves is shown in table 2b.

The proved oil and gas reserves are not mapped as are the undiscovered technically recoverable resources in figures 2i through 2r and figures 3l through 3ad. However, the reserves figures, presented in table 2b, are included in the summary tables and pie charts (table ES-1, figure ES-2, tables 3a through 3f and figures 3a through 3f). Proved reserves are included in the "Leasing, Standard Lease Terms (SLT)" category since by definition they are accessible with minimal constraints.

See Appendix 6 for a more detailed explanation of proved reserves estimation and field boundary construction.

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Basin	Number of Fields	Total Liquid Reserves (Mbbbl)	Federal Land Liquid Reserves (Mbbbl)	% Federal	Total Gas Reserves (MMcf)	Federal Land Gas Reserves (MMcf)	% Federal	Total BOE* Reserves (Mbbbl)	Federal Land BOE Reserves (Mbbbl)	% Federal
<i>Paradox-San Juan</i>	250	174,193	53,103	30.5	20,653,622	11,033,357	53.4	3,616,464	1,891,996	52.3
<i>Uinta-Piceance</i>	180	254,329	142,495	56.0	7,181,669	3,779,755	52.6	1,451,274	772,454	53.2
<i>Greater Green River</i>	281	177,362	122,234	68.9	12,703,038	10,081,667	79.4	2,294,535	1,802,512	78.6
<i>Powder River</i>	543	193,456	110,783	57.3	2,398,604	927,738	38.7	593,223	265,406	44.7
<i>Montana Thrust Belt</i>	1	1	0	0.0	0	0	0.0	1	0	0.0
<b>Total</b>	<b>1,255</b>	<b>799,341</b>	<b>428,616</b>	<b>53.6</b>	<b>42,936,933</b>	<b>25,822,517</b>	<b>60.1</b>	<b>7,955,497</b>	<b>4,732,368</b>	<b>59.5</b>

\*Barrels of Oil Equivalent

**Table 2b Proved Reserves Summary Statistics, 2001**

**2.4 DATA INTEGRATION AND SPATIAL ANALYSIS**

Data integration and spatial analysis were performed as described below. The assumptions that were made as a part of the modeling process are described and the spatial analysis performed in the GIS are described in Appendix 7.

**2.4.1 Categorization for Federal Land Status and Lease Stipulations**

Two factors affect access to oil and gas resources on Federal lands: land status (Section 2.1.1) and leasing stipulations (Section 2.1.2). To simplify the analysis and present meaningful results, these two factors were combined into a hierarchy of categories that represents varying levels of access as shown in table 2c. This categorization was necessary to enable a reasonable quantitative analysis given the fact that approximately 1,000 unique stipulations exist within the study areas.

Level	Access Category	Comments
1.	No Leasing (Statutory/Executive Order), (NLS)	Status set by Law or Executive Order; drilling prohibited
2.	No Leasing (Administrative), Pending Land Use Planning or NEPA Compliance (NLA/LUP)	Status set by Federal surface management agency; drilling prohibited
3.	No Leasing (Administrative), general category (NLA)	
4.	Leasing, No Surface Occupancy (NSO)	Directional drilling permitted from off-lease locations*
5.	Leasing, Cumulative Timing Limitations on Drilling >9 Months (TLs >9)	Categorized by the cumulative effect of seasonal
6.	Leasing, Cumulative Timing Limitations on Drilling 6-9 Months (TLs 6-9)	leasing stipulations during which drilling is prohibited, generally for protection of wildlife
7.	Leasing, Cumulative Timing Limitations on Drilling 3-6 Months (TLs 3-6)	
8.	Leasing, Cumulative Timing Limitations on Drilling <3 Months (TLs <3)	
9.	Leasing, Controlled Surface Use (CSU)	Drilling permitted, specialized mitigation plan required
10.	Leasing, Standard Lease Terms (SLTs)	Drilling permitted, mitigation plan required

\*Resources under margins of NSO areas may be accessible by directional drilling.

**Table 2c Categorization Hierarchy**

The hierarchy of categories was formulated to ensure that the potential for oil and gas development could be appropriately assessed (especially for areas of multiple, overlapping stipulations), and to ensure that the cumulative impacts on access would be examined. In addition, the hierarchy was formulated based upon the accessibility of the lands for leasing, for areas in which leasing is permitted, and the impacts relative to the costs to operators for conducting drilling.

The categorization is ordered from No Leasing to Leasing with Standard Lease Terms as follows:

1. **No Leasing (Statutory/Executive Order) (NLS)** are areas that cannot be leased due to Congressional or Presidential action. Examples include national parks, national monuments, and wilderness areas.
2. **No Leasing (Administrative) Pending Land Use Planning or NEPA Compliance (NLA/LUP)** are Federal administrative areas that are currently undergoing land use planning or NEPA analysis and are not currently available for leasing.<sup>5</sup> Table A7-1 in Appendix 7 shows the NLA/LUP jurisdictions within the EPCA inventory area.
3. **No Leasing (Administrative) (NLA)** are areas in which leasing does not occur based on discretionary decisions made by the Federal land management agency. NLAs include endangered species habitat and historical sites.
4. **Leasing, No Surface Occupancy (NSO)** are areas that can be leased but stipulations generally prohibit surface occupancy for natural gas and oil exploration and development activities to protect identified resources such as special status plant species habitat. NSO areas are treated in the analysis as no access areas (administrative); however, these areas can be accessed by directional drilling as described later in this document.
- 5-8. **Leasing, Cumulative Timing Limitations (TLs)** are areas that can be leased, but stipulations limit the time of the year when oil and gas exploration and drilling can take place. Timing limitation stipulations prohibit surface use during specified time intervals to protect identified resources such as sage grouse habitat or elk calving areas.
9. **Leasing, Controlled Surface Use (CSU)** are areas that can be leased, but stipulations control the surface location of natural gas and oil exploration and development activities by excluding them from certain portions of the lease. For example, a CSU stipulation could require an operator to develop a specialized mitigation plan based on the presence of steep slopes within a lease area.
10. **Leasing, Standard Lease Terms (SLT)** are areas that can be leased, and where no additional stipulations are added to the standard lease form. Standard lease terms, however, still dictate that the lessee comply with a number of environmentally protective and other requirements.

Appendix 9 (available on the CD-ROMs or the web sites) provides a listing and coding of the individual stipulations for each of the study areas.

## 2.4.2 Analytical Modeling of Federal Lands and Resources

See Appendix 7 for a detailed description of the GIS methodology used to categorize the Federal lands and resources for the inventory.

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<sup>5</sup> This category was determined on a case-by-case basis as the initiation of a new land use plan or plan revision does not generally preclude leasing under an existing plan.

## 3.0 RESULTS

The results of the analyses are presented below where they are summarized by access category for land area and resources. Table 3a shows the results for the combined study areas and Tables 3b through 3f show the results for individual study areas. These tables show the results for land access categorization for land area, total liquids (oil, NGLs and liquids associated with gas reservoirs), and total natural gas (associated and non-associated). Total liquids and total natural gas comprise undiscovered technically recoverable resources and proved reserves. Matching charts depicting the access categorization are shown in figures 3a through 3f. Federal land access categorization maps for each study area are shown in figures 3g through 3k.

Corresponding maps showing the accessibility of undiscovered liquids resources on Federal lands for each study area are shown in figures 3l through 3p. Maps showing the accessibility of undiscovered natural gas resources on Federal lands for each study area are shown in figures 3q through 3ad. Note that, by way of example, figures 3s through 3ab show the GGRB Study Area where, in a sequence of the ten maps, the undiscovered natural gas resources available at each of the land access hierarchy levels are presented. This represents a sample of what can be derived from the GIS data that can be found on the CD-ROM.

For the remainder of Section 3 the term “resources” is used to denote “undiscovered technically recoverable resources and proved reserves.”

### 3.1 STUDY AREA FEATURES

Each of the study areas is unique in terms of its Federal lands, resources and reserves accessibility. Noted features are presented below:

#### 3.1.1 Paradox/San Juan Basin

- Approximately 34 percent (5.96 million acres) of the Federal land in the basin is available for oil and gas leasing with standard stipulations (Figure 3b, “Leasing, Standard Lease Terms”). Based on resource estimates, these lands contain 52 percent (224 million barrels) of the technically recoverable oil and 79 percent (28.9 trillion cubic feet) of the technically recoverable gas in the basin.
- Approximately 9 percent (1.62 million acres) of the Federal land is available for leasing with restrictions on oil and gas operations beyond standard stipulations (Figure 3b, all other “Leasing” categories except “Leasing, Standard Lease Terms”). Based on resource estimates, these lands contain 16 percent (68 million barrels) of the technically recoverable oil and 17 percent (6.28 trillion cubic feet) of the technically recoverable gas in the basins.
- Approximately 57 percent (10 million acres) of the Federal land in the basin is not available for leasing (Figure 3b, 3 “No Leasing” categories). Based on resource estimates, these lands contain about 32 percent (138 million barrels) of the technically recoverable oil and 3 percent (1.18 trillion cubic feet) of the technically recoverable natural gas in the basins.
- The estimated volume of oil under all lands within the basin ranges from 174 to 1,319 million barrels, with a mean estimate of 660 million barrels<sup>1</sup>.

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<sup>1</sup>USGS reports the volume of undiscovered oil and natural using a range of likelihoods (or percentage) that a certain volume of oil and natural gas is present. These estimates range from a 5 percent chance for a

### Section 3 Results

- The estimated volume of natural gas under all lands within the basin ranges from 41 to 64 trillion cubic feet, with a mean estimate of 52 trillion cubic feet.
- Most of the undiscovered natural gas (approximately 95 percent) is found widely dispersed in continuous<sup>2</sup> deposits rather than distinct structural traps.
- Most of the oil (52 percent) and natural gas (79 percent) are available under standard lease terms.
- Among the five study areas in the inventory, this area has the greatest proportion of proved natural gas reserves (28 percent) relative to undiscovered resources.

#### 3.1.2 Uinta/Piceance Basin

- Approximately 45 percent (6.23 million acres) of the Federal land in the basin is available for oil and gas leasing with standard stipulations (Figure 3c, “Leasing, Standard Lease Terms”). Based on resource estimates, these lands contain 85 percent (186 million barrels) of the technically recoverable oil and 57 percent (9.26 trillion cubic feet) of the technically recoverable gas in the basin.
- Approximately 35 percent (4.74 million acres) of the Federal land is available for leasing with restrictions on oil and gas operations beyond standard stipulations (Figure 3c, all other “Leasing” categories except “Leasing, Standard Lease Terms”). Based on resource estimates, these lands contain 9 percent (19 million barrels) of the technically recoverable oil and 37 percent (5.99 trillion cubic feet) of the technically recoverable gas in the basins.
- Approximately 20 percent (2.72 million acres) of the Federal land in the basin is not available for leasing (Figure 3c, 3 “No Leasing” categories). Based on resource estimates, these lands contain about 7 percent (14 million barrels) of the technically recoverable oil and 6 percent (0.89 trillion cubic feet) of the technically recoverable natural gas in the basins.
- The estimated volume of oil under all lands within the basin ranges from 61 to 296 million barrels, with a mean estimate of 149 million barrels.
- The estimated volume of natural gas under all lands within the basin ranges from 12 to 35 trillion cubic feet, with a mean estimate of 22 trillion cubic feet.
- Most of the undiscovered natural gas (greater than 95 percent) is found widely dispersed in continuous deposits rather than distinct structural traps.
- Among the five study areas, this area has the highest percentage of oil (85 percent) available under standard lease terms. This is partly because most of the oil (63 percent) is proved reserves.
- Compared to the other four areas in this inventory, this area has the highest percentage of federal lands (9 percent), as well as the natural gas (15 percent) resources designated within the “no surface occupancy” category.

#### 3.1.3 Greater Green River Basin

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large volume to a 95 percent chance for a small volume of oil and natural gas to occur. This inventory used the mean or the average of all the possible likelihoods and volumes. For the Paradox/San Juan Basin, there is a 5 percent likelihood that 1,319 million barrels of oil and a 95 percent likelihood that 174 million barrels of oil could occur. However, the average estimate for the area is 600 million barrels of oil.

<sup>2</sup> A continuous accumulation of oil or natural gas is one that is located throughout a large area and lacks a discrete border or structural trap.



- Approximately 45 percent (5.12 million acres) of the Federal land in the basin is available for oil and gas leasing with standard stipulations (Figure 3d, “Leasing, Standard Lease Terms”). Based on resource estimates, these lands contain 57 percent (1,162 million barrels) of the technically recoverable oil and 61 percent (43.6 trillion cubic feet) of the technically recoverable gas in the basin.
- Approximately 37 percent (4.24 million acres) of the Federal land is available for leasing with restrictions on oil and gas operations beyond standard stipulations (Figure 3d, all other “Leasing” categories except “Leasing, Standard Lease Terms”). Based on resource estimates, these lands contain 31 percent (635 million barrels) of the technically recoverable oil and 29 percent (20.6 trillion cubic feet) of the technically recoverable gas in the basins.
- Approximately 19 percent (2.16 million acres) of the Federal land in the basin is not available for leasing (Figure 3d, 3 “No Leasing” categories). Based on resource estimates, these lands contain about 13 percent (259 million barrels) of the technically recoverable oil and 10 percent (7.35 trillion cubic feet) of the technically recoverable natural gas in the basins.
- The estimated volume of oil under all lands within the basin ranges from 1,367 to 4,724 million barrels, with a mean estimate of 2,709 million barrels.
- The estimated volume of natural gas under all lands within the basin ranges from 53 to 127 trillion cubic feet, with a mean estimate of 85 trillion cubic feet.
- Almost all of the undiscovered natural gas (97 percent) is widely dispersed in continuous deposits rather than distinct structural traps.
- A relatively large portion of the federal land (29 percent of the surface area) and, 27 percent of the oil and 25 percent of the natural gas are under timing limitations of 3 to 9 months.
- Among the five inventory areas, this area has the greatest volume of oil (2.1 billion barrels) and natural gas (72 trillion cubic feet) under federal lands.
- The land ownership pattern is highly complex due a checkerboard pattern of ownership resulting from railroad grants.

### **3.1.4 Powder River Basin**

- Approximately 52 percent (5.51 million acres) of the Federal land in the basin is available for oil and gas leasing with standard stipulations (Figure 3e, “Leasing, Standard Lease Terms”). Based on resource estimates, these lands contain 63 percent (620 million barrels) of the technically recoverable oil and 59 percent (4.82 trillion cubic feet) of the technically recoverable gas in the basin.
- Approximately 35 percent (3.73 million acres) of the Federal land is available for leasing with restrictions on oil and gas operations beyond standard stipulations (Figure 3e, all other “Leasing” categories except “Leasing, Standard Lease Terms”). Based on resource estimates, these lands contain 33 percent (324 million barrels) of the technically recoverable oil and 32 percent (2.57 trillion cubic feet) of the technically recoverable gas in the basins.
- Approximately 14 percent (1.45 million acres) of the Federal land in the basin is not available for leasing (Figure 3e, 3 “No Leasing” categories). Based on resource estimates, these lands contain about 4 percent (36 million barrels) of the technically recoverable oil and 9 percent (0.76 trillion cubic feet) of the technically recoverable natural gas in the basins.

### Section 3 Results

- The estimated volume of oil under all lands within the basin ranges from 350 to 3,345 million barrels, with a mean estimate of 1,642 million barrels.
- The estimated volume of natural gas under all lands within the basin ranges from 9 to 27 trillion cubic feet, with a mean estimate of 16 trillion cubic feet.
- Almost all undiscovered natural gas is continuous coalbed natural gas (98 percent).
- Most of the federal land (52 percent) and 63 percent of the oil and 59 percent of the natural gas are available under standard lease terms.
- Among the five inventory areas, this area has the highest proportion of federal land (10 percent) and 12 percent of the oil, and 11 percent of the natural gas available under the controlled surface use category.
- Among the five inventory areas, this area has the highest proportion of split estate lands<sup>3</sup> (60 percent of federal lands).

#### 3.1.5 Montana Thrust Belt

- Approximately 4 percent (0.23 million acres) of the Federal land in the basin is available for oil and gas leasing with standard stipulations (Figure 3f, “Leasing, Standard Lease Terms”). Based on resource estimates, these lands contain 3 percent (6 million barrels) of the technically recoverable oil and 1 percent (0.05 trillion cubic feet) of the technically recoverable gas in the basin.
- Approximately 14 percent (0.83 million acres) of the Federal land is available for leasing with restrictions on oil and gas operations beyond standard stipulations (Figure 3f, all other “Leasing” categories except “Leasing, Standard Lease Terms”). Based on resource estimates, these lands contain 9 percent (15 million barrels) of the technically recoverable oil and 8 percent (0.52 trillion cubic feet) of the technically recoverable gas in the basins.
- Approximately 82 percent (4.79 million acres) of the Federal land in the basin is not available for leasing (Figure 3f, 3 “No Leasing” categories). Based on resource estimates, these lands contain about 88 percent (149 million barrels) of the technically recoverable oil and 91 percent (5.73 trillion cubic feet) of the technically recoverable natural gas in the basins.
- The estimated volume of oil under all lands within the area ranges from 55 to 843 million barrels, with a mean estimate of 348 million barrels.
- The estimated volume of natural gas under all lands within the area ranges from 1.1 to 21 trillion cubic feet, with a mean estimate of 8.6 trillion cubic feet.
- The area contains the smallest volume of resource of all five-inventory areas (oil, 348 million barrels; natural gas, 8.6 trillion cubic feet).
- A high percentage of the federal land (82 percent) and 88 percent of the oil and 91 percent of the natural gas are currently “closed” to leasing.
- The USDA-Forest Service is the primary federal land manager in the area (69 percent of the area of which almost half is currently “closed” to leasing while undergoing new land use planning).

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<sup>3</sup> Split estate lands are those lands where the surface rights belong to private individuals but the subsurface mineral rights are publicly held, and managed by the federal government.

Level	Access Category	Area		Resources			
		(acres x1000)	Percent of Federal	Total Liquids* (MMBbl)***	Percent of Federal	Total Natural Gas** (Bcf)****	Percent of Federal
1.	No Leasing (Statutory/Executive Order)	10,068	17%	298	8%	9,035	7%
2.	No Leasing (Administrative, Pending Land Use Plan)	6,007	10%	116	3%	3,690	3%
3.	No Leasing (Administrative)	5,098	9%	182	5%	3,185	2%
4.	Leasing, No Surface Occupancy	2,714	5%	50	1%	3,120	2%
5.	Leasing, Cumulative Timing Limitations on Drilling >9 Months	25	0%	3	0%	114	0%
6.	Leasing, Cumulative Timing Limitations on Drilling 6-9 Months	2,521	4%	250	6%	5,549	4%
7.	Leasing, Cumulative Timing Limitations on Drilling 3-6 Months	5,442	9%	528	14%	20,401	15%
8.	Leasing, Cumulative Timing Limitations on Drilling <3 Months	697	1%	8	0%	733	1%
9.	Leasing, Controlled Surface Use	3,753	6%	221	6%	6,080	4%
10.	Leasing, Standard Lease Terms	23,091	39%	2,198	57%	86,566	63%
Total, Federal Lands Including Split Estate		59,416	100%	3,854	100%	138,472	100%
Total Non-Federal		44,256		2,455		87,668	
Total Study Area		103,672		6,309		226,141	

More  
Constrained  
↑  
Less  
Constrained

\* Comprising oil, NGLs and liquids associated with natural gas reservoirs

\*\* Comprising associated dissolved and nonassociated natural gas

\*\*\*MMBbl -- Millions of Barrels

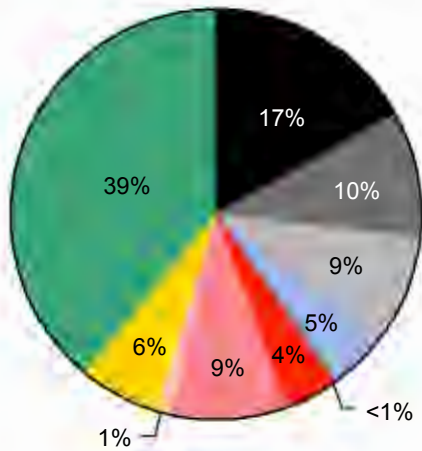
\*\*\*\*Bcf -- Billion cubic feet

Small rounding errors may be present

Closed to leasing	21,173	36%	596	15%	15,910	11%
Leasing with restrictions	15,152	26%	1,060	28%	35,997	26%
Leasing with standard lease terms	23,091	39%	2,198	57%	86,566	63%

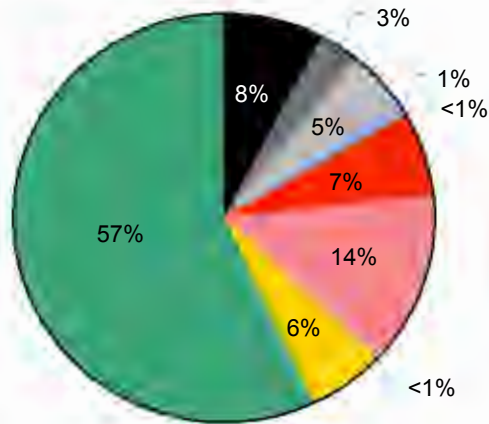
**Table 3a Summary of All EPCA Inventory Areas – Oil and Natural Gas Resources Affected by Access Categories**

Percent of Federal and Split Estate Lands



- No Leasing (Statutory/Executive Order)
- No Leasing (Administrative, Pending Land Use Plan)
- No Leasing (Administrative)
- Leasing, No Surface Occupancy
- Leasing, Cumulative Timing Limitations on Drilling >9 Months
- Leasing, Cumulative Timing Limitations on Drilling 6-9 Months
- Leasing, Cumulative Timing Limitations on Drilling 3-6 Months
- Leasing, Cumulative Timing Limitations on Drilling <3 Months
- Leasing, Controlled Surface Use
- Leasing, Standard Lease Terms

Percent of Oil Resources



Percent of Natural Gas Resources

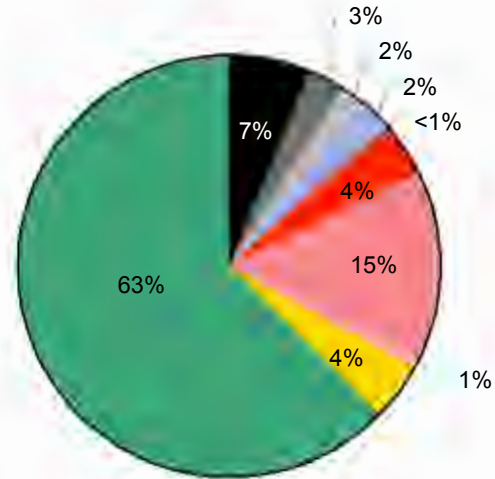


Figure 3a Summary of All EPCA Inventory Areas – Oil and Natural Gas Resources Affected by Access Categories

Level	Access Category	Area		Resources			
		(acres x1000)	Percent of Federal	Total Liquids* (MMBbl)***	Percent of Federal	Total Natural Gas** (Bcf)****	Percent of Federal
1.	No Leasing (Statutory/Executive Order), (NLS)	5,309	30%	66	15%	540	1%
2.	No Leasing (Administrative), (NLA/LUP)	2,050	12%	4	1%	1	0%
3.	No Leasing (Administrative), (NLA)	2,690	15%	68	16%	647	2%
4.	Leasing, No Surface Occupancy (NSO)	196	1%	6	1%	67	0%
5.	Leasing, Cumulative Timing Limitations on Drilling >9 Months (TLs >9)	0	0%	0	0%	0	0%
6.	Leasing, Cumulative Timing Limitations on Drilling 6-9 Months (TLs 6-9)	95	1%	4	1%	402	1%
7.	Leasing, Cumulative Timing Limitations on Drilling 3-6 Months (TLs 3-6)	764	4%	33	8%	4,015	11%
8.	Leasing, Cumulative Timing Limitations on Drilling <3 Months (TLs <3)	23	0%	1	0%	10	0%
9.	Leasing, Controlled Surface Use (CSU)	542	3%	23	5%	1,789	5%
10.	Leasing, Standard Lease Terms (SLTs)	5,960	34%	224	52%	28,869	79%
Total, Federal Lands Including Split Estate		17,628	100%	430	100%	36,340	100%
Total Non-Federal		11,040		404		36,142	
Total Study Area		28,669		834		72,482	

\* Comprising oil, NGLs and liquids associated with natural gas reservoirs

\*\* Comprising associated dissolved and nonassociated natural gas

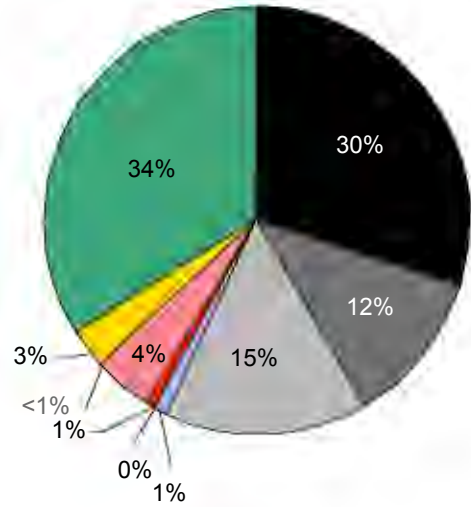
\*\*\*MMBbl -- Millions of Barrels

\*\*\*\*Bcf -- Billion cubic feet

Closed to leasing	10,048	57%	138	32%	1,187	3%
Leasing with restrictions	1,620	9%	68	16%	6,283	17%
Leasing with standard lease terms	5,960	34%	224	52%	28,869	79%

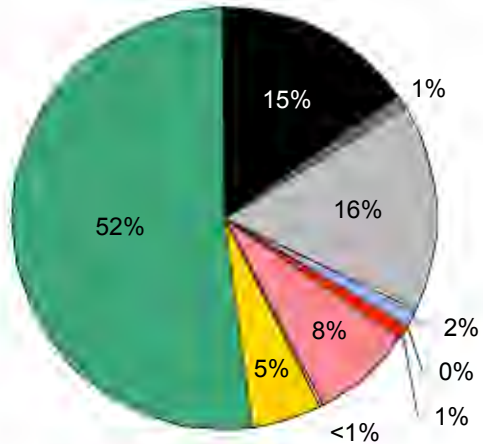
**Table 3b Results—Land and Resources Categorization, Paradox/San Juan Study Areas**

Percent of Federal and Split Estate Lands



- No Leasing (Statutory/Executive Order)
- No Leasing (Administrative, Pending Land Use Plan)
- No Leasing (Administrative)
- Leasing, No Surface Occupancy
- Leasing, Cumulative Timing Limitations on Drilling >9 Months
- Leasing, Cumulative Timing Limitations on Drilling 6-9 Months
- Leasing, Cumulative Timing Limitations on Drilling 3-6 Months
- Leasing, Cumulative Timing Limitations on Drilling <3 Months
- Leasing, Controlled Surface Use
- Leasing, Standard Lease Terms

Percent of Oil Resources



Percent of Natural Gas Resources

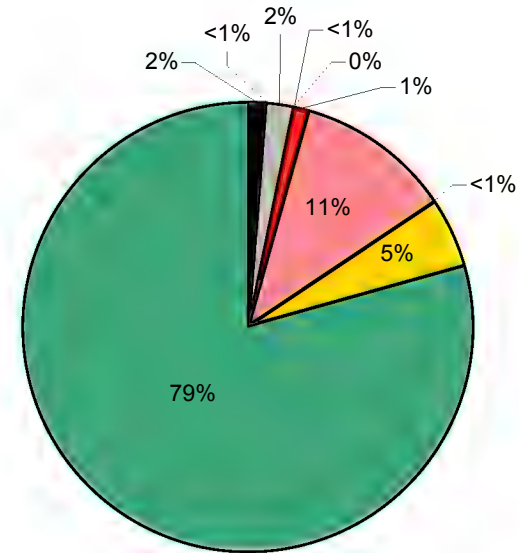


Figure 3b Chart of Results—Land and Resources Categorization, Paradox/San Juan Study Area

Level	Access Category	Area		Resources			
		(acres x1000)	Percent of Federal	Total Liquids*		Total Natural Gas**	
				(MMBbl)***	Percent of Federal	(Bcf)****	Percent of Federal
1.	No Leasing (Statutory/Executive Order), (NLS)	1,661	12.1%	13	5.8%	661	4.1%
2.	No Leasing (Administrative), (NLA/LUP)	644	4.7%	1	0.6%	149	0.9%
3.	No Leasing (Administrative), (NLA)	419	3.1%	0	0.2%	81	0.5%
4.	Leasing, No Surface Occupancy (NSO)	1,268	9.3%	8	3.6%	2,433	15.1%
5.	Leasing, Cumulative Timing Limitations on Drilling >9 Months (TLs >9)	0	0.0%	0	0.0%	0	0.0%
6.	Leasing, Cumulative Timing Limitations on Drilling 6-9 Months (TLs 6-9)	238	1.7%	1	0.5%	86	0.5%
7.	Leasing, Cumulative Timing Limitations on Drilling 3-6 Months (TLs 3-6)	1,314	9.6%	4	2.0%	1,652	10.2%
8.	Leasing, Cumulative Timing Limitations on Drilling <3 Months (TLs <3)	538	3.9%	2	0.8%	585	3.6%
9.	Leasing, Controlled Surface Use (CSU)	1,381	10.1%	4	1.7%	1,232	7.6%
10.	Leasing, Standard Lease Terms (SLTs)	6,231	45.5%	186	84.8%	9,255	57.4%
Total, Federal Lands Including Split Estate		13,694	100.0%	220	100.0%	16,135	100.0%
Total Non-Federal		5,252		184		12,708	
Total Study Area		18,945		404		28,843	

\* including oil, NGLs and liquids associated with natural gas reservoirs

\*\*\*MMBbl -- Millions of Barrels

Small rounding errors

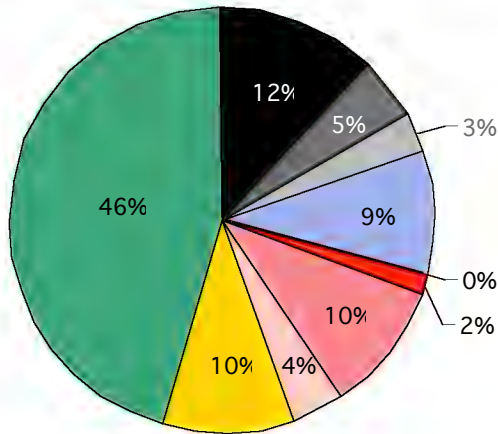
\*\* including associated dissolved and nonassociated natural gas

\*\*\*\*Bcf -- Billion cubic feet

may be present

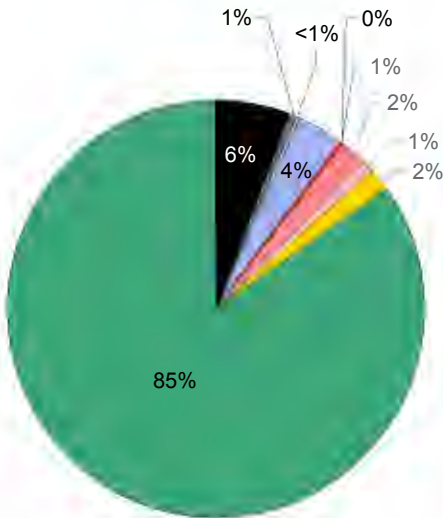
**Table 3c Results—Land and Resources Categorization, Uinta/Piceance Study Area**

Percent of Federal and Split Estate Lands



- No Leasing (Statutory/Executive Order)
- No Leasing (Administrative, Pending Land Use Plan)
- No Leasing (Administrative)
- Leasing, No Surface Occupancy
- Leasing, Cumulative Timing Limitations on Drilling >9 Months
- Leasing, Cumulative Timing Limitations on Drilling 6-9 Months
- Leasing, Cumulative Timing Limitations on Drilling 3-6 Months
- Leasing, Cumulative Timing Limitations on Drilling <3 Months
- Leasing, Controlled Surface Use
- Leasing, Standard Lease Terms

Percent of Oil Resources



Percent of Natural Gas Resources

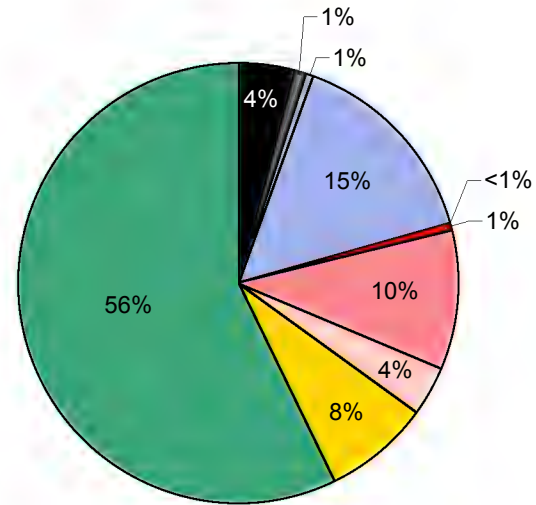


Figure 3c

Chart of Results—Land and Resources Categorization, Uinta/Piceance Study Area



Level	Access Category	Area		Resources			
		(acres x1000)	Percent of Federal	Total Liquids* (MMBbl)***	Percent of Federal	Total Natural Gas** (Bcf)****	Percent of Federal
1.	No Leasing (Statutory/Executive Order), (NLS)	638	5.5%	135	6.6%	4,598	6.4%
2.	No Leasing (Administrative), (NLA/LUP)	461	4.0%	37	1.8%	702	1.0%
3.	No Leasing (Administrative), (NLA)	1,058	9.2%	86	4.2%	2,046	2.9%
4.	Leasing, No Surface Occupancy (NSO)	266	2.3%	12	0.6%	175	0.2%
5.	Leasing, Cumulative Timing Limitations on Drilling >9 Months (TLs >9)	8	0.1%	3	0.1%	107	0.1%
6.	Leasing, Cumulative Timing Limitations on Drilling 6-9 Months (TLs 6-9)	992	8.6%	110	5.3%	4,055	5.7%
7.	Leasing, Cumulative Timing Limitations on Drilling 3-6 Months (TLs 3-6)	2,369	20.5%	437	21.3%	14,117	19.7%
8.	Leasing, Cumulative Timing Limitations on Drilling <3 Months (TLs <3)	64	0.6%	4	0.2%	104	0.1%
9.	Leasing, Controlled Surface Use (CSU)	536	4.6%	69	3.4%	2,076	2.9%
10.	Leasing, Standard Lease Terms (SLTs)	5,159	44.7%	1,162	56.5%	43,565	60.9%
Total, Federal Lands Including Split Estate		11,551	100.0%	2,055	100.0%	71,546	100.0%
Total Non-Federal		5,033		832		25,747	
Total Study Area		16,583		2,887		97,293	

\* including oil, NGLs and liquids associated with natural gas reservoirs

\*\* including associated dissolved and nonassociated natural gas

\*\*\*MMBbl -- Millions of Barrels

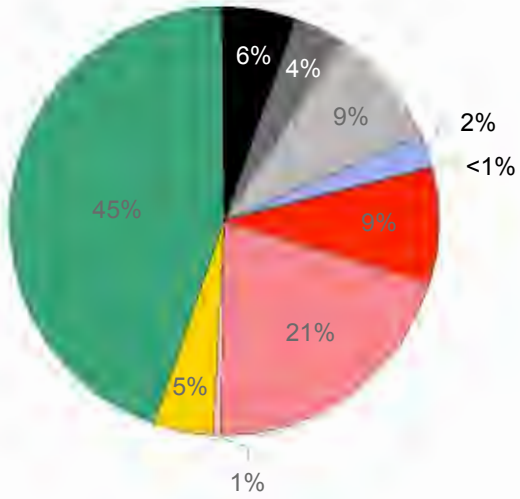
\*\*\*\*Bcf -- Billion cubic feet

Small rounding errors

may be present

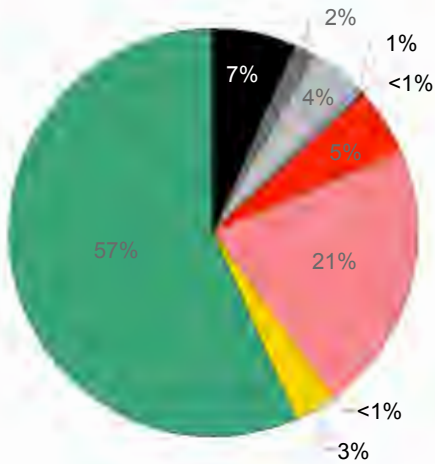
**Table 3d Results—Land and Resources Categorization, Greater Green River Study Area**

Percent of Federal and Split Estate Lands



- No Leasing (Statutory/Executive Order)
- No Leasing (Administrative, Pending Land Use Plan)
- No Leasing (Administrative)
- Leasing, No Surface Occupancy
- Leasing, Cumulative Timing Limitations on Drilling >9 Months
- Leasing, Cumulative Timing Limitations on Drilling 6-9 Months
- Leasing, Cumulative Timing Limitations on Drilling 3-6 Months
- Leasing, Cumulative Timing Limitations on Drilling <3 Months
- Leasing, Controlled Surface Use
- Leasing, Standard Lease Terms

Percent of Oil Resources



Percent of Natural Gas Resources

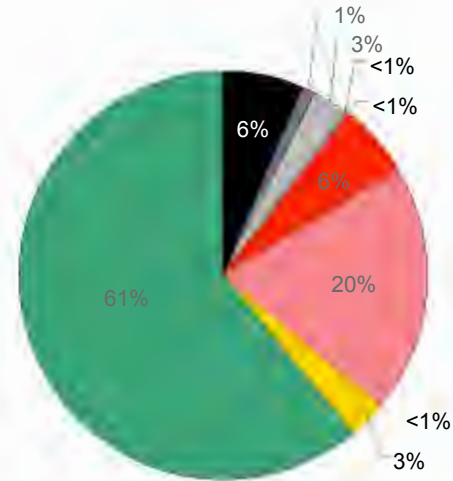


Figure 3d Chart of Results—Land and Resources Categorization, Greater Green River Study Area

Level	Access Category	Area		Resources			
		(acres x1000)	Percent of Federal	Total Liquids* (MMBbl)***	Percent of Federal	Total Natural Gas** (Bcf)****	Percent of Federal
1.	No Leasing (Statutory/Executive Order), (NLS)	109	1%	0	0.0%	26	0.3%
2.	No Leasing (Administrative), (NLA/LUP)	1,006	9%	17	1.7%	570	7.0%
3.	No Leasing (Administrative), (NLA)	335	3%	18	1.9%	165	2.0%
4.	Leasing, No Surface Occupancy (NSO)	644	6%	17	1.7%	178	2.2%
5.	Leasing, Cumulative Timing Limitations on Drilling >9 Months (TLs >9)	1	0%	0	0.0%	1	0.0%
6.	Leasing, Cumulative Timing Limitations on Drilling 6-9 Months (TLs 6-9)	1,122	10%	133	13.6%	961	11.8%
7.	Leasing, Cumulative Timing Limitations on Drilling 3-6 Months (TLs 3-6)	870	8%	52	5.3%	545	6.7%
8.	Leasing, Cumulative Timing Limitations on Drilling <3 Months (TLs <3)	3	0%	1	0.1%	4	0.1%
9.	Leasing, Controlled Surface Use (CSU)	1,092	10%	121	12.4%	884	10.8%
10.	Leasing, Standard Lease Terms (SLTs)	5,511	52%	620	63.3%	4,824	59.1%
Total, Federal Lands Including Split Estate		10,693	100%	979	100%	8,157	100%
Total Non-Federal		17,102		856		10,728	
Total Study Area		27,796		1,835		18,885	

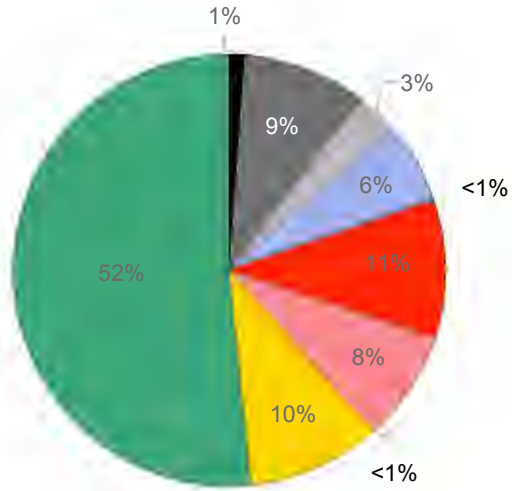
\* Comprising oil, NGLs and liquids associated with natural gas reservoirs  
\*\* Comprising associated dissolved and nonassociated natural gas

\*\*\*MMBbl -- Millions of Barrels  
\*\*\*\*Bcf -- Billion cubic feet

Closed to leasing	1,450	14%	36	4%	761	9%
Leasing with restrictions	3,733	35%	324	33%	2,572	32%
Leasing with standard lease terms	5,511	52%	620	63%	4,824	59%

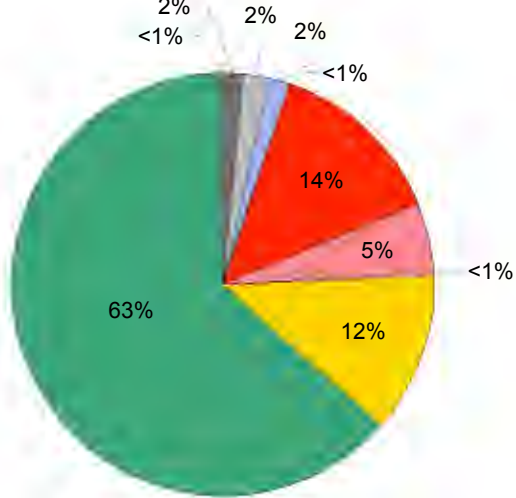
**Table 3e. Results—Land and Resources Categorization, Powder River Study Area**

Percent of Federal and Split Estate Lands



- No Leasing (Statutory/Executive Order)
- No Leasing (Administrative, Pending Land Use Plan)
- No Leasing (Administrative)
- Leasing, No Surface Occupancy
- Leasing, Cumulative Timing Limitations on Drilling >9 Months
- Leasing, Cumulative Timing Limitations on Drilling 6-9 Months
- Leasing, Cumulative Timing Limitations on Drilling 3-6 Months
- Leasing, Cumulative Timing Limitations on Drilling <3 Months
- Leasing, Controlled Surface Use
- Leasing, Standard Lease Terms

Percent of Oil Resources



Percent of Natural Gas Resources

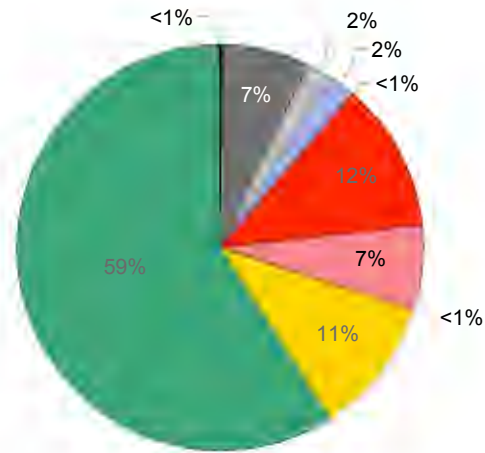


Figure 3e. Chart of Results—Land and Resources Categorization, Powder River Study Area

Level	Access Category	Area		Resources			
		(acres x1000)	Percent of Federal	Total Liquids* (MMBbl)***	Percent of Federal	Total Natural Gas** (Bcf)****	Percent of Federal
1.	No Leasing (Statutory/Executive Order), (NLS)	2,351	40.2%	83	49.2%	3,210	51.0%
2.	No Leasing (Administrative), (NLA/LUP)	1,846	31.6%	57	33.4%	2,269	36.0%
3.	No Leasing (Administrative), (NLA)	597	10.2%	9	5.2%	247	3.9%
4.	Leasing, No Surface Occupancy (NSO)	340	5.8%	7	3.9%	266	4.2%
5.	Leasing, Cumulative Timing Limitations on Drilling >9 Months (TLs >9)	16	0.3%	0	0.1%	6	0.1%
6.	Leasing, Cumulative Timing Limitations on Drilling 6-9 Months (TLs 6-9)	74	1.3%	1	0.6%	45	0.7%
7.	Leasing, Cumulative Timing Limitations on Drilling 3-6 Months (TLs 3-6)	124	2.1%	3	1.5%	72	1.1%
8.	Leasing, Cumulative Timing Limitations on Drilling <3 Months (TLs <3)	69	1.2%	1	0.4%	29	0.5%
9.	Leasing, Controlled Surface Use (CSU)	203	3.5%	4	2.3%	99	1.6%
10.	Leasing, Standard Lease Terms (SLTs)	230	3.9%	6	3.4%	52	0.8%
Total, Federal Lands Including Split Estate		5,849	100.0%	170	100.0%	6,294	100.0%
Total Non-Federal		5,829		179		2,344	
Total Study Area		11,678		348		8,638	

\* including oil, NGLs and liquids associated with natural gas reservoirs

\*\* including associated dissolved and nonassociated natural gas

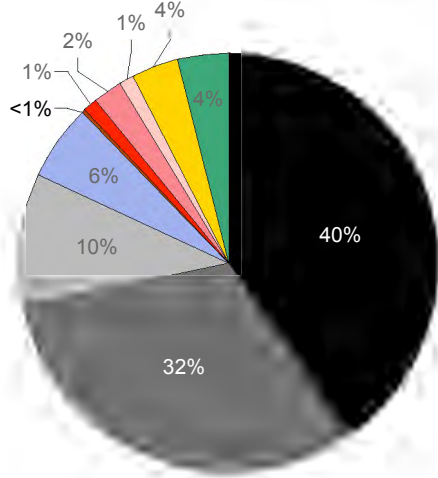
\*\*\*MMBbl -- Millions of Barrels

\*\*\*\*Bcf -- Billion cubic feet

Small rounding errors may be present

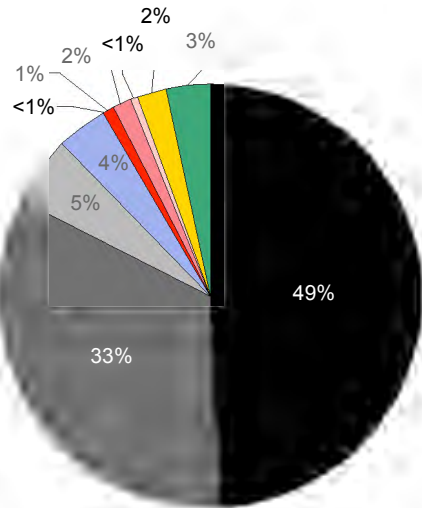
**Table 3f. Results—Land and Resources Categorization, Montana Thrust Belt Study Area**

Percent of Federal and Split Estate Lands



- No Leasing (Statutory/Executive Order)
- No Leasing (Administrative, Pending Land Use Plan)
- No Leasing (Administrative)
- Leasing, No Surface Occupancy
- Leasing, Cumulative Timing Limitations on Drilling >9 Months
- Leasing, Cumulative Timing Limitations on Drilling 6-9 Months
- Leasing, Cumulative Timing Limitations on Drilling 3-6 Months
- Leasing, Cumulative Timing Limitations on Drilling <3 Months
- Leasing, Controlled Surface Use
- Leasing, Standard Lease Terms

Percent of Oil Resources



Percent of Natural Gas Resources

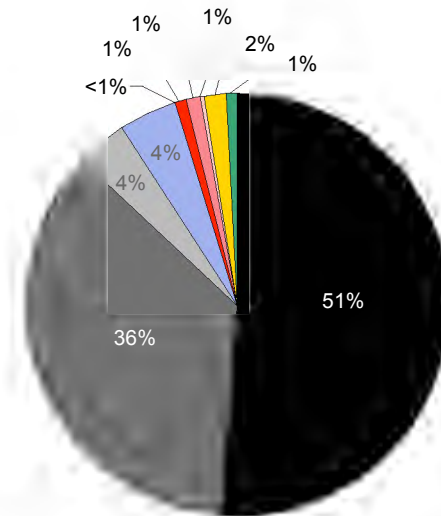


Figure 3f. Chart of Results—Land and Resources Categorization, Montana Thrust Belt Study Area

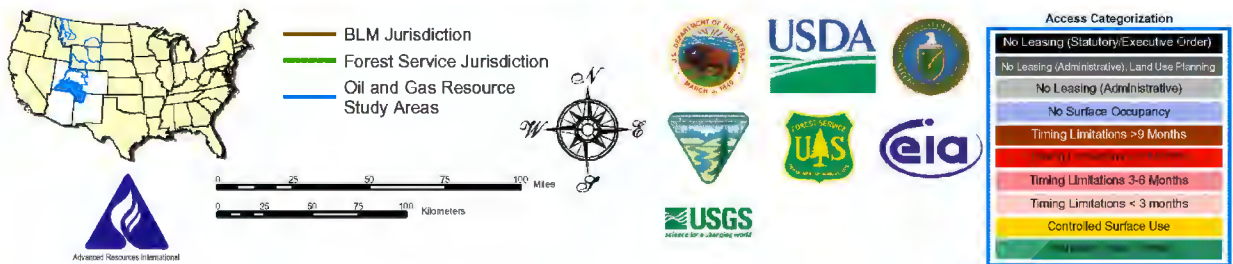
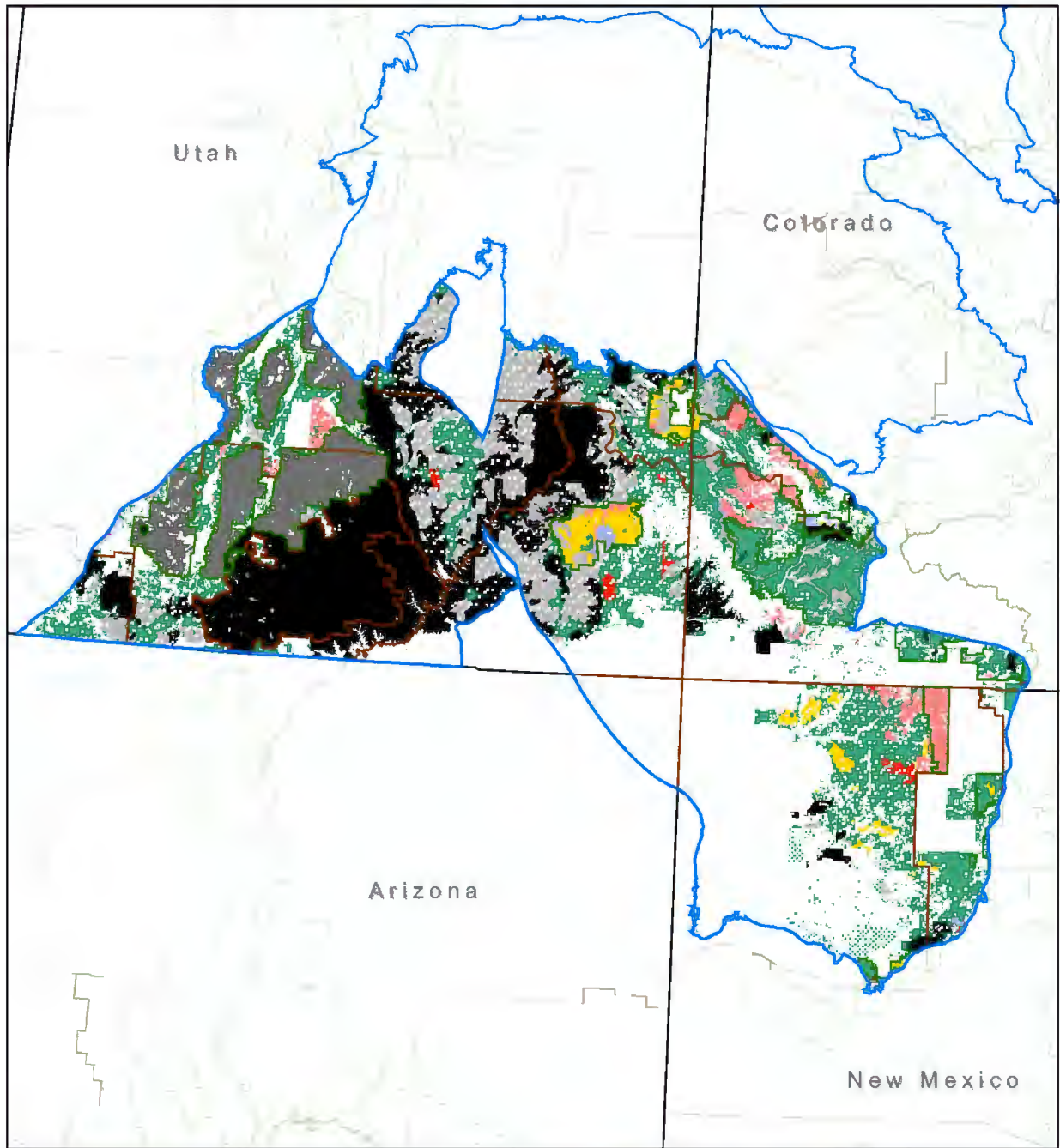
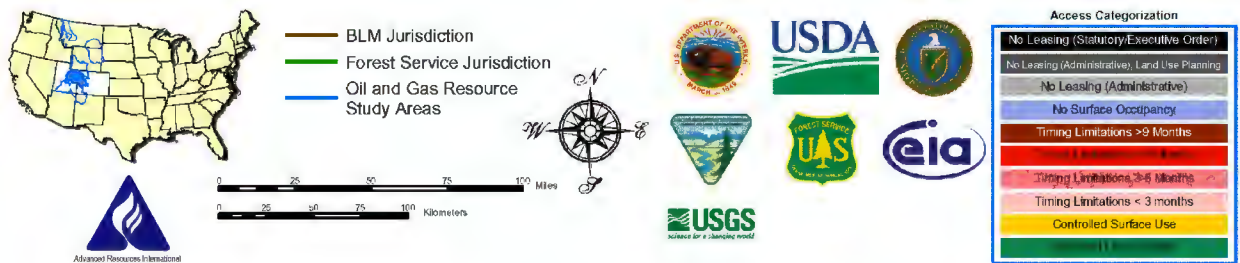
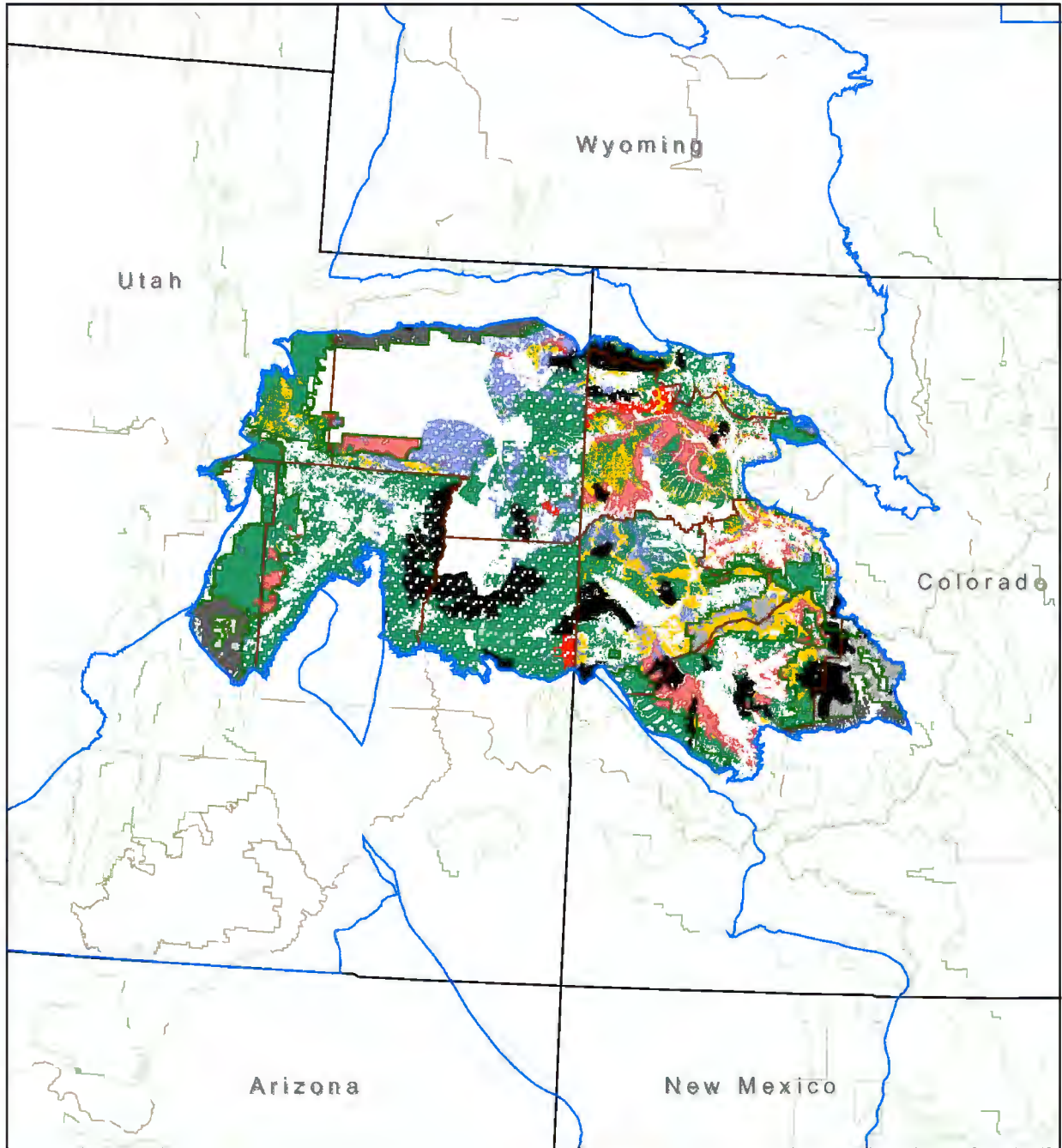


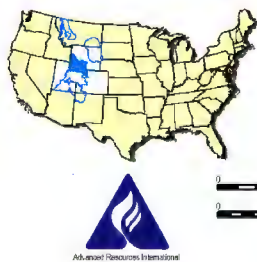
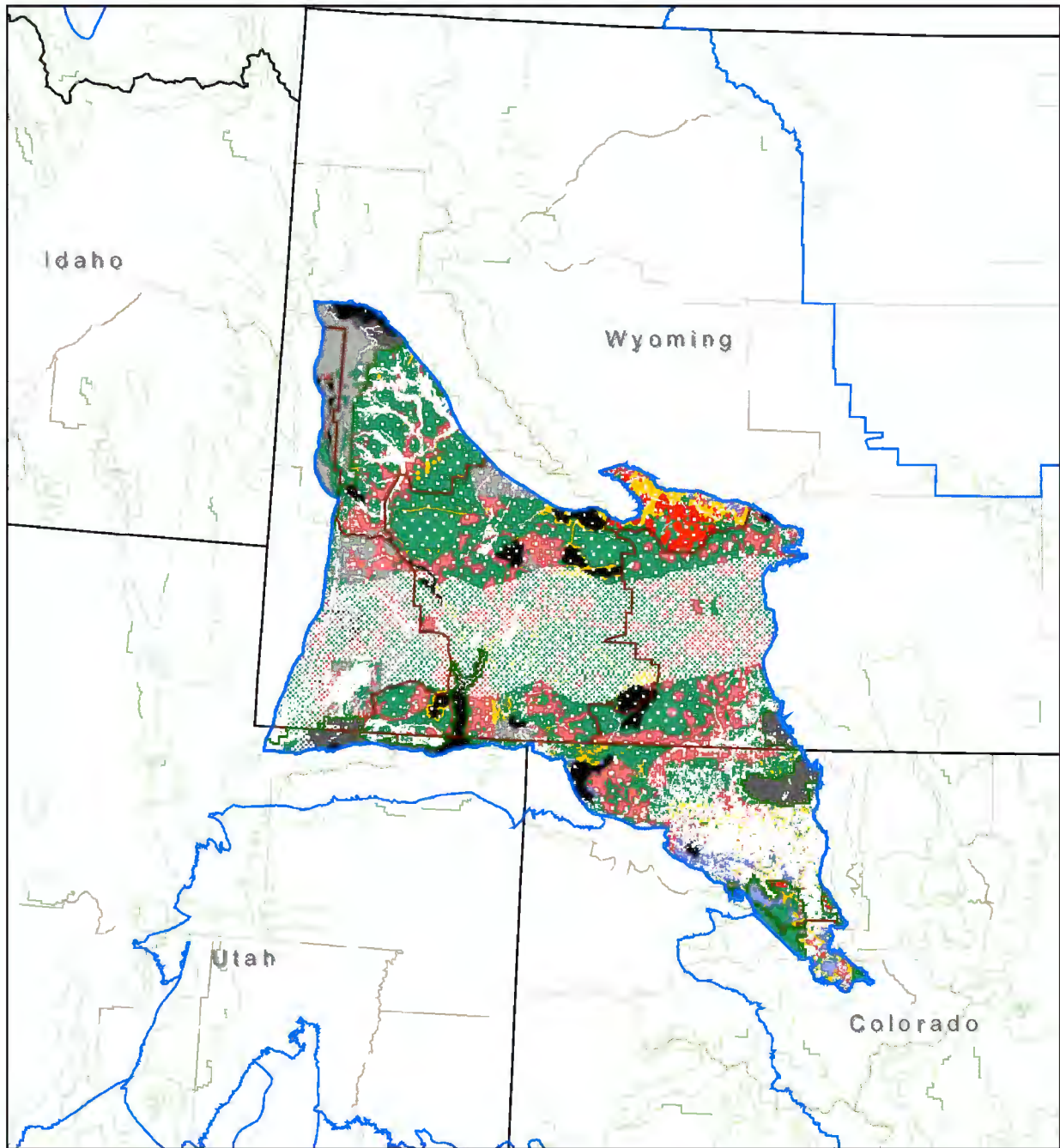
Figure 3g Land Access Categorization Map – Paradox/San Juan Study Areas

**Section 3  
Results**

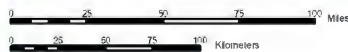


**Figure 3h Land Access Categorization – Uinta/Piceance Study Areas**





- BLM Jurisdiction
- Forest Service Jurisdiction
- Oil and Gas Resource Study Areas



Access Categorization	
No Leasing (Statutory/Executive Order)	
No Leasing (Administrative) Land Use Planning	
No Leasing (Administrative)	
No Surface Occupancy	
Timing Limitations > 9 Months	
Timing Limitations 6-9 Months	
Timing Limitations 3-6 Months	
Timing Limitations < 3 months	
Controlled Surface Use	
Controlled Surface Use	

Figure 3i Land Access Categorization – Greater Green River Study Area

Section 3  
Results

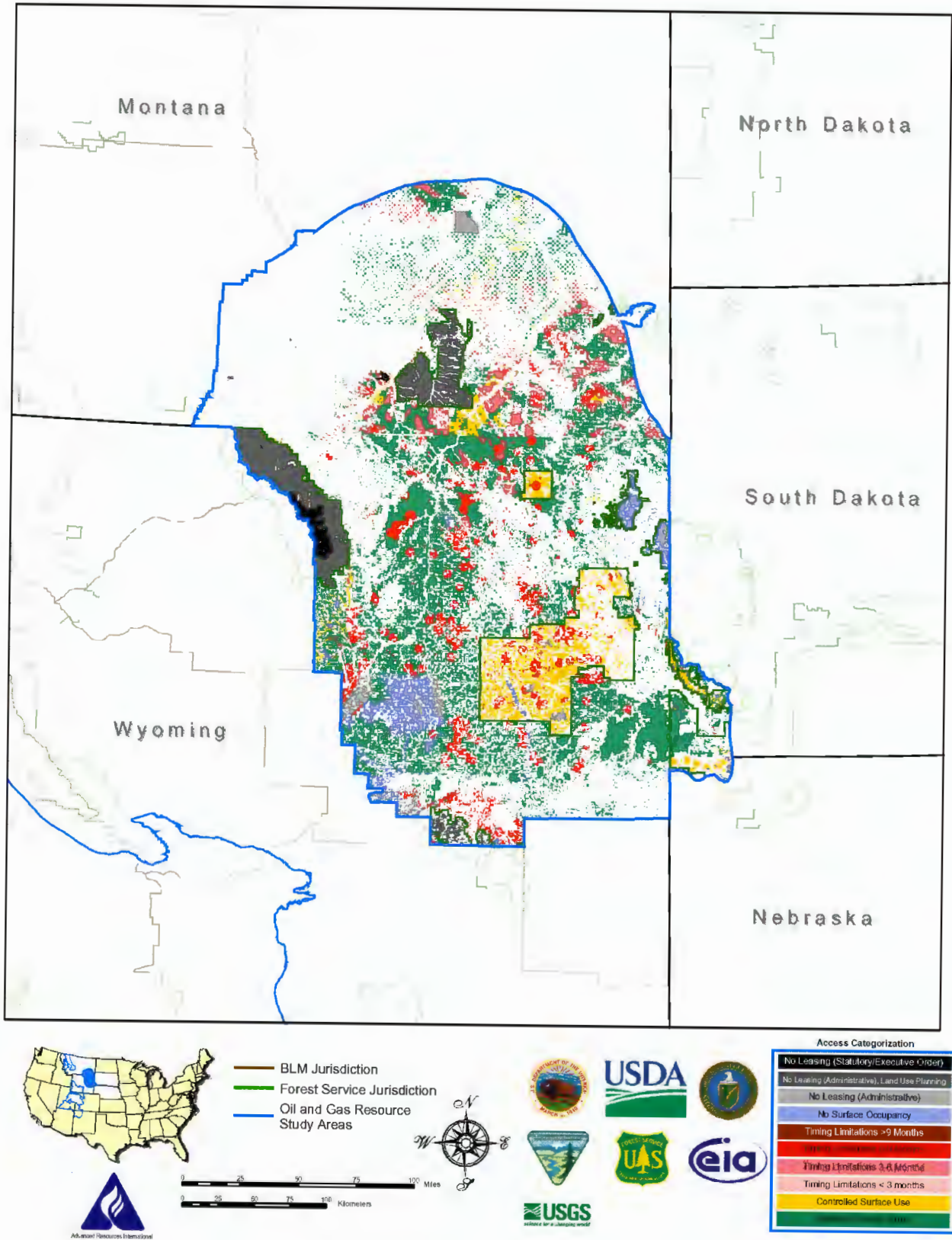


Figure 3j Land Access Categorization – Powder River Study Area

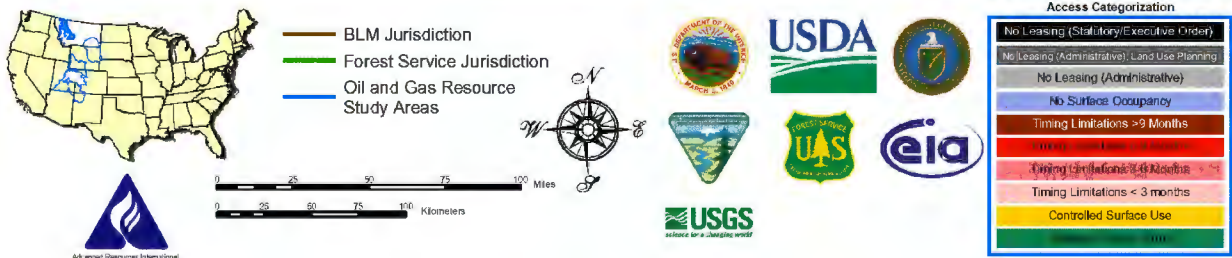
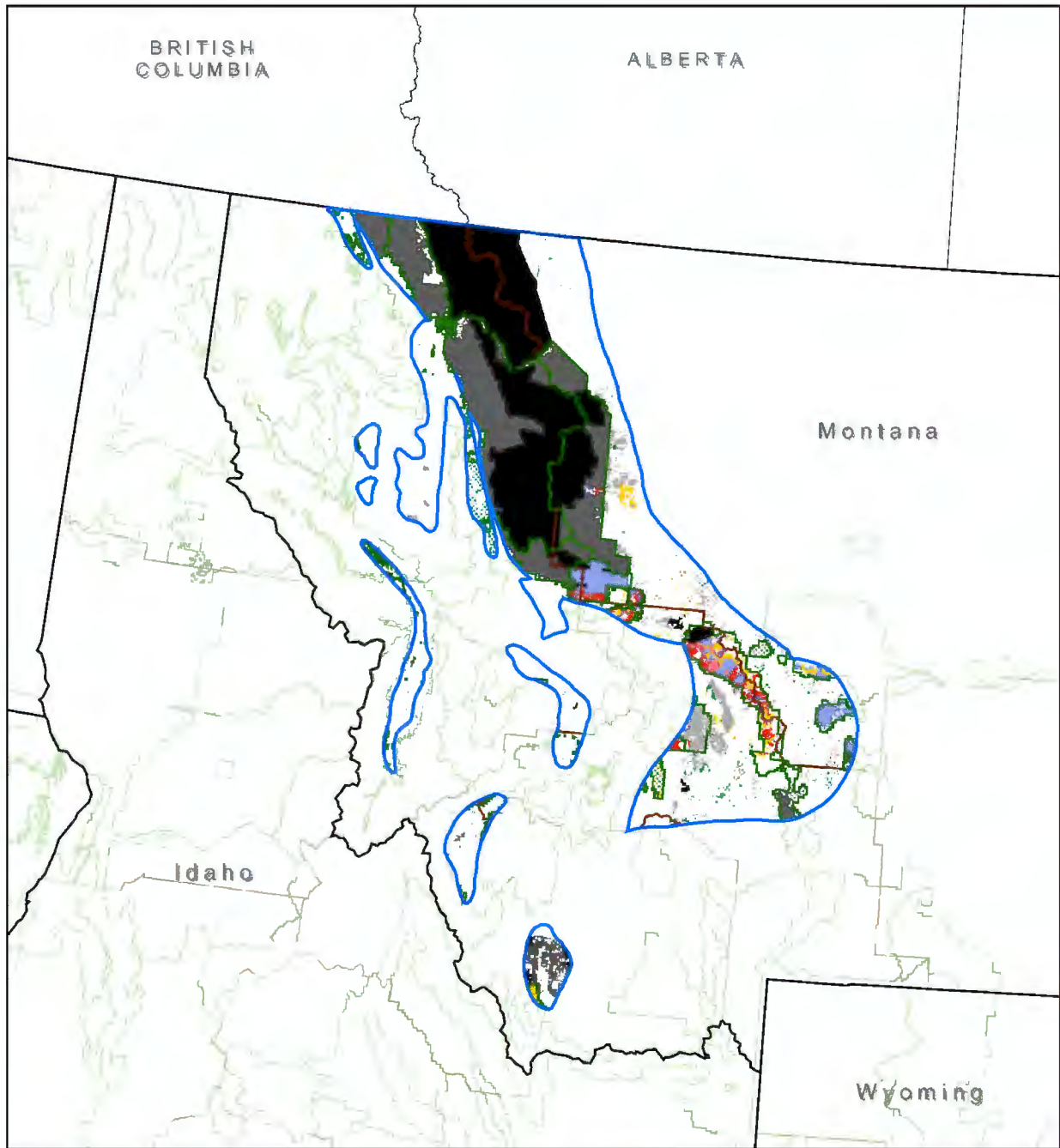
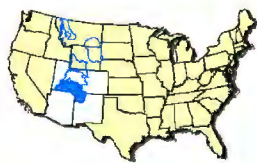
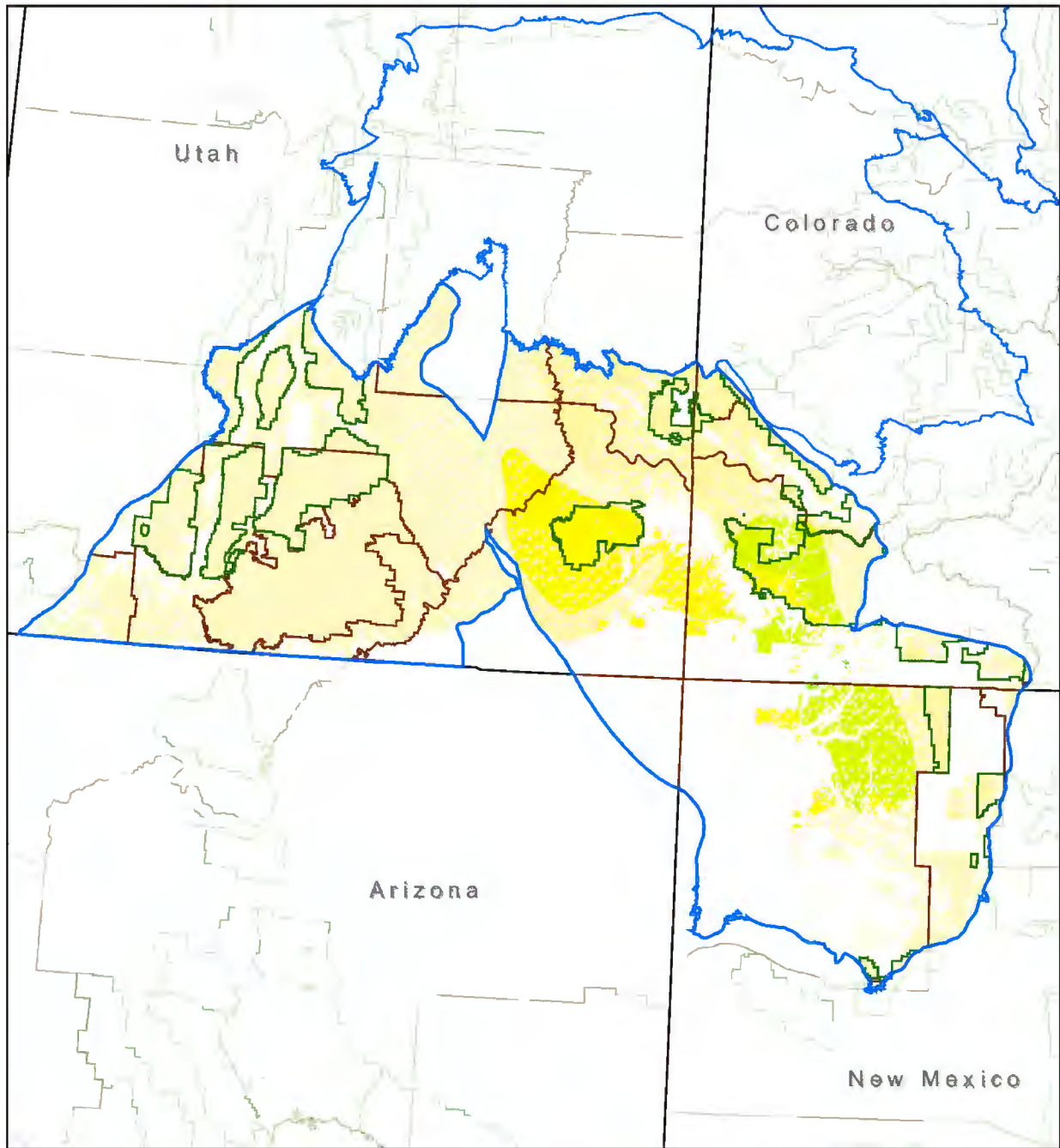
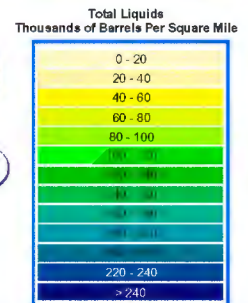
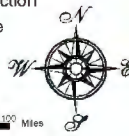


Figure 3k Land Access Categorization – Montana Thrust Belt Study Area

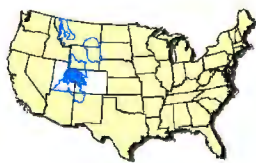
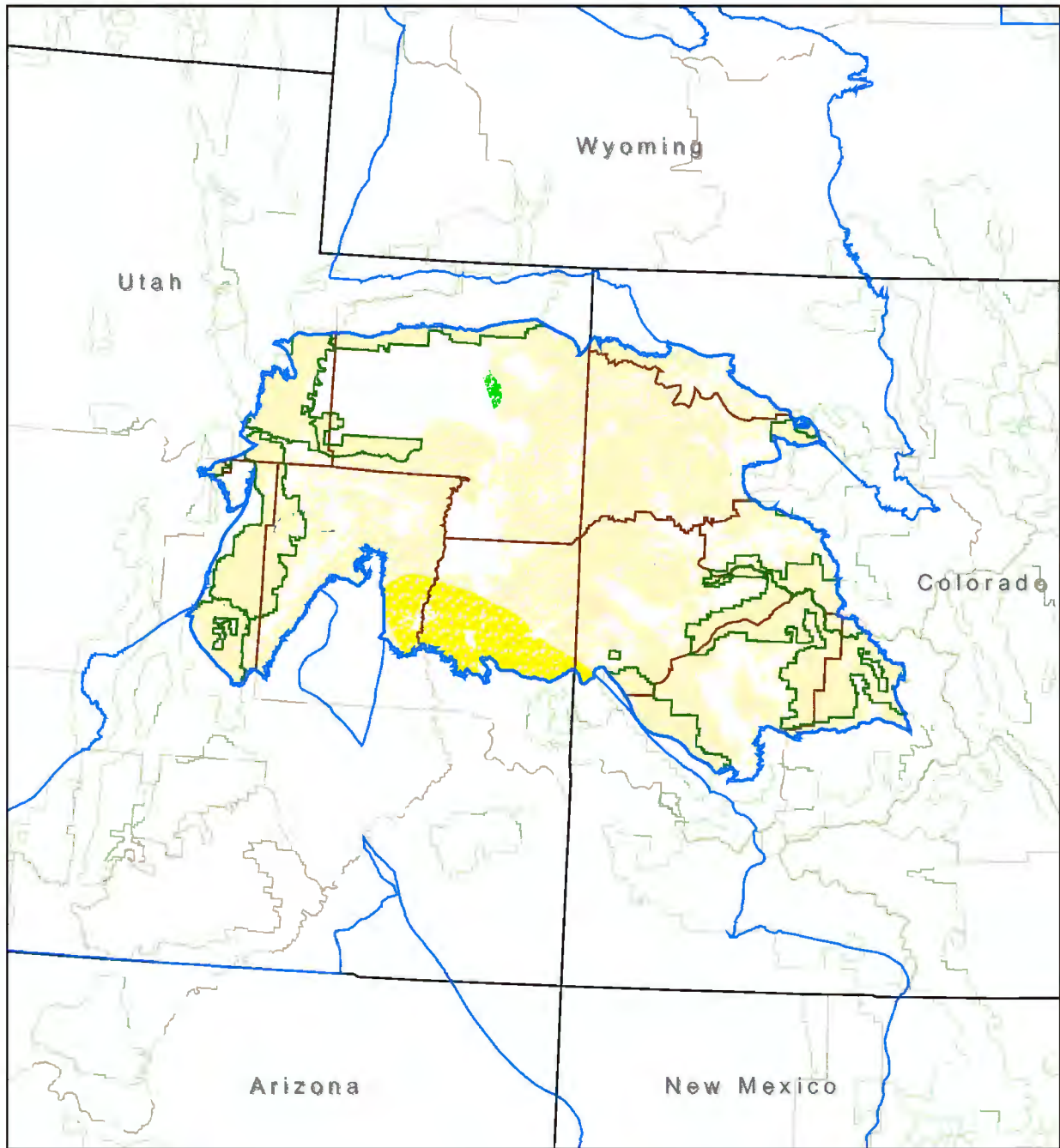
**Section 3  
Results**



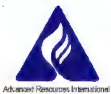
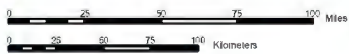
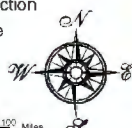
- BLM Jurisdiction
- Forest Service Jurisdiction
- Oil and Gas Resource Study Areas



**Figure 31 Access Map, Total Liquids – Paradox/San Juan Study Areas – Categories 1-10**



- BLM Jurisdiction
- Forest Service Jurisdiction
- Oil and Gas Resource Study Areas



Total Liquids  
Thousands of Barrels Per Square Mile

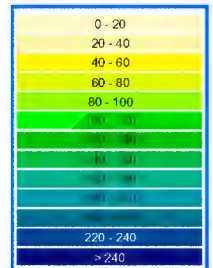
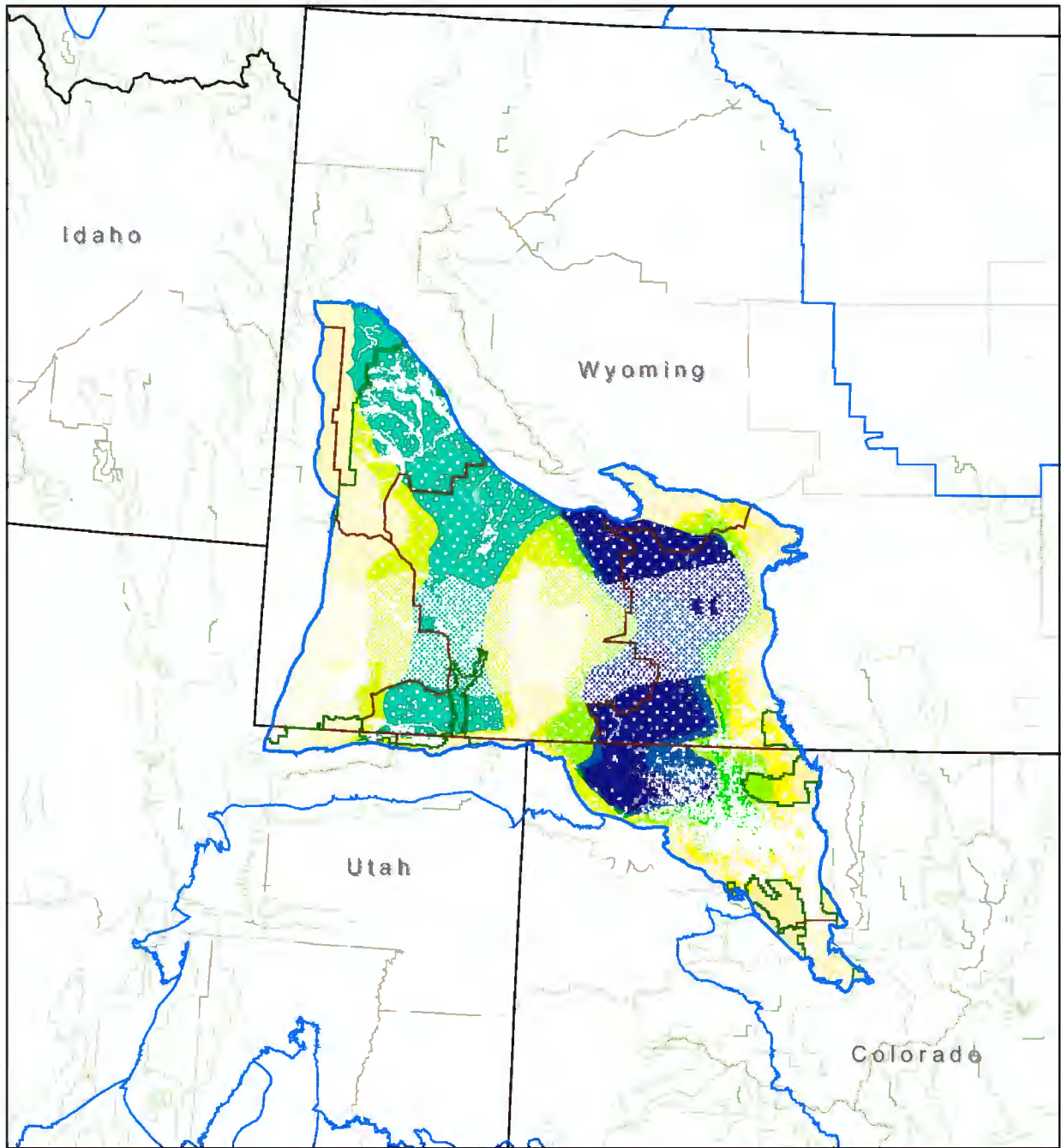



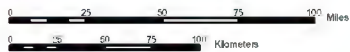


Figure 3m Access Map, Total Liquids – Uinta/Piceance Study Areas - Categories 1-10

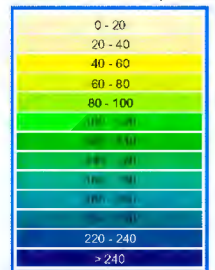
**Section 3  
Results**



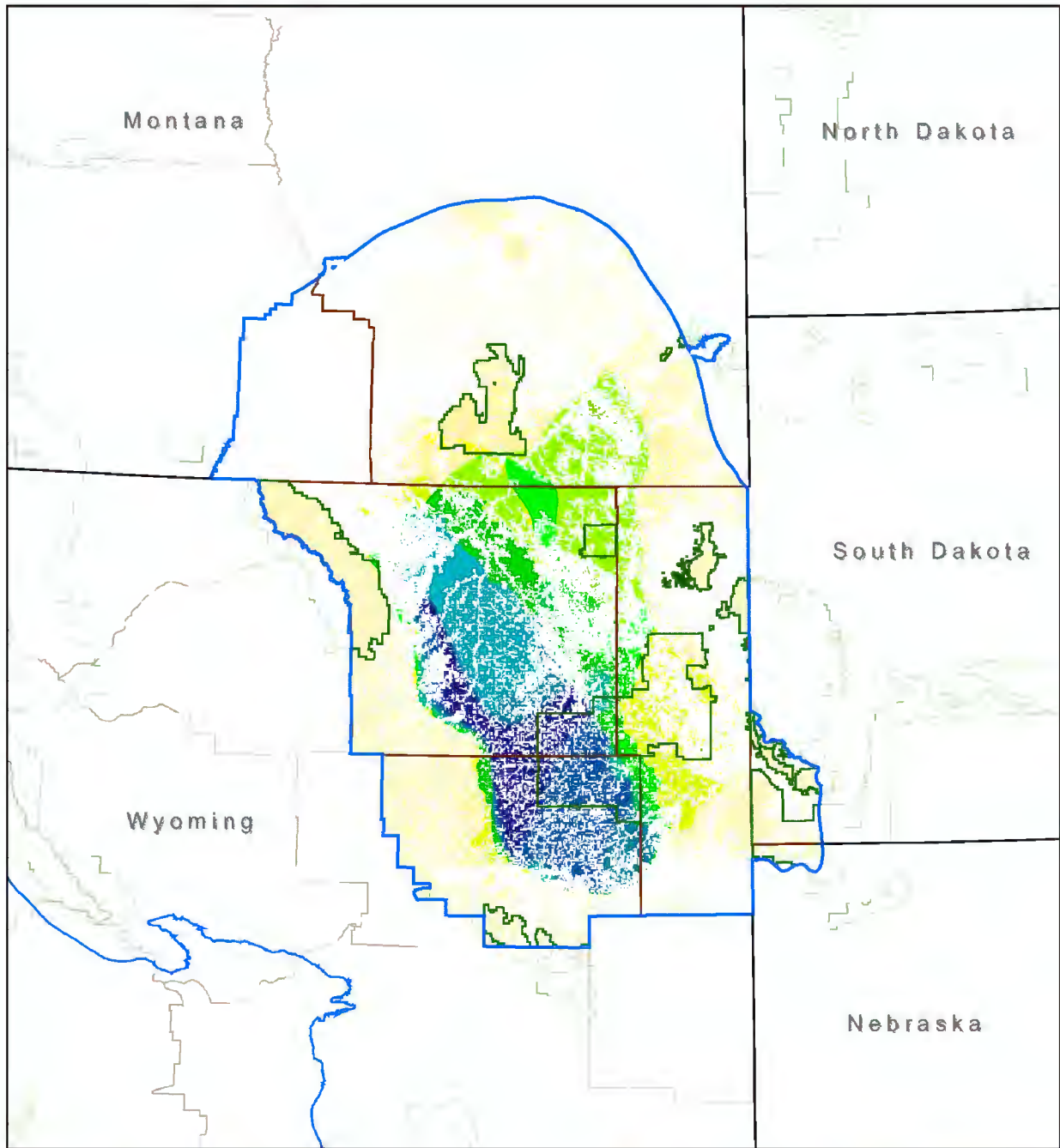
-  BLM Jurisdiction
-  Forest Service Jurisdiction
-  Oil and Gas Resource Study Areas



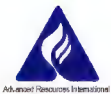
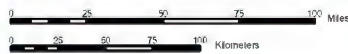
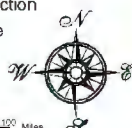
Total Liquids  
Thousands of Barrels Per Square Mile



**Figure 3n Access Map, Total Liquids – Greater Green River Study Area- Categories 1-10**



- BLM Jurisdiction
- Forest Service Jurisdiction
- Oil and Gas Resource Study Areas



Total Liquids  
Thousands of Barrels Per Square Mile

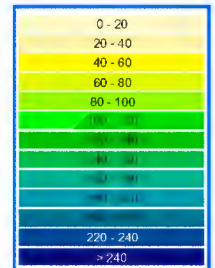
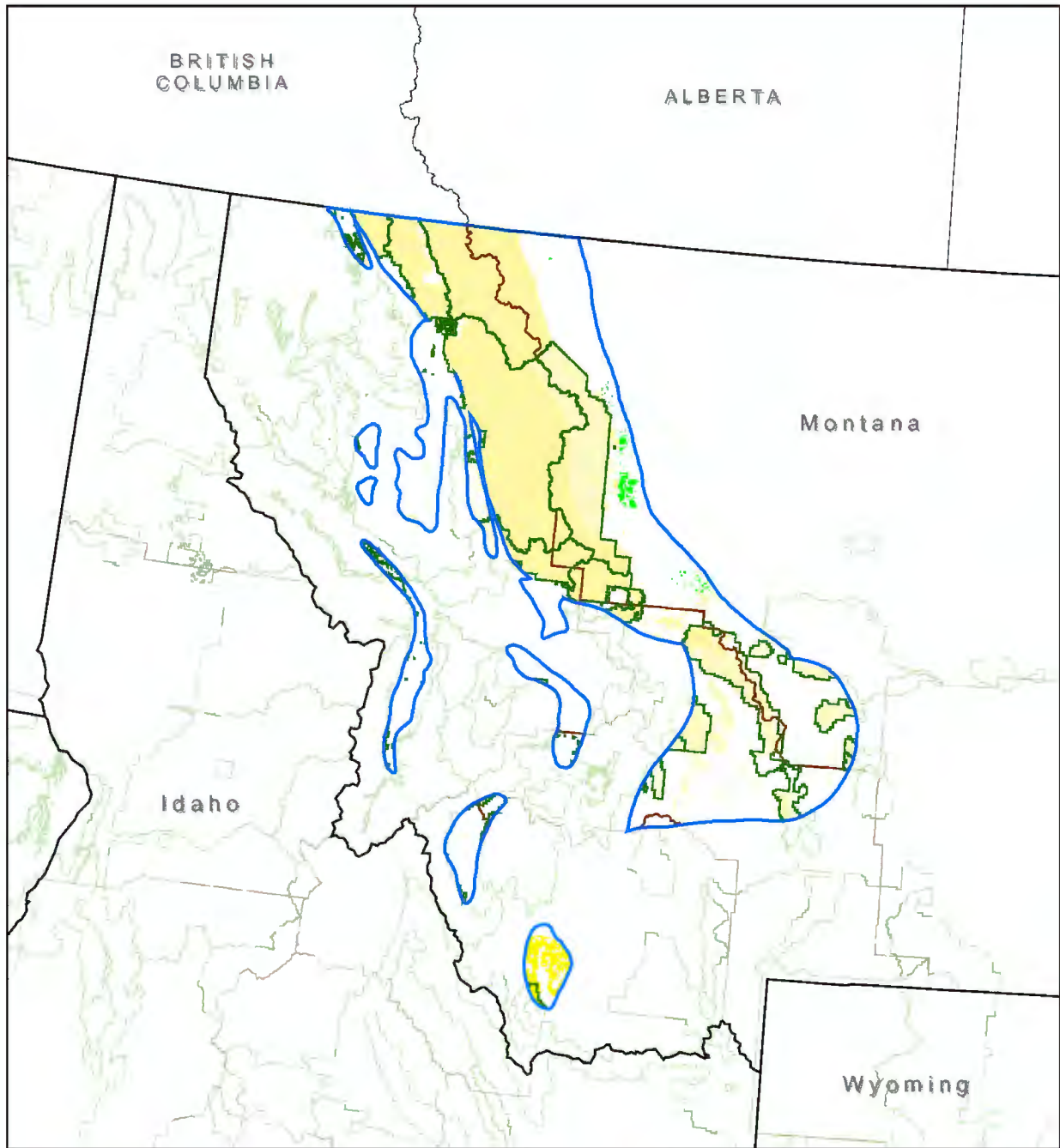
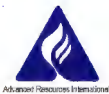
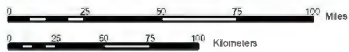


Figure 30 Access Map, Total Liquids – Powder River Study Area - Categories 1-10

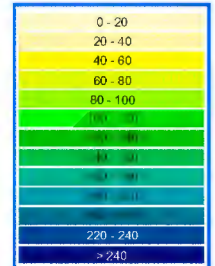
**Section 3  
Results**



- BLM Jurisdiction
- Forest Service Jurisdiction
- Oil and Gas Resource Study Areas

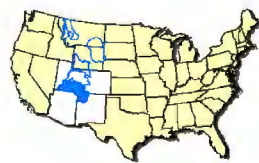
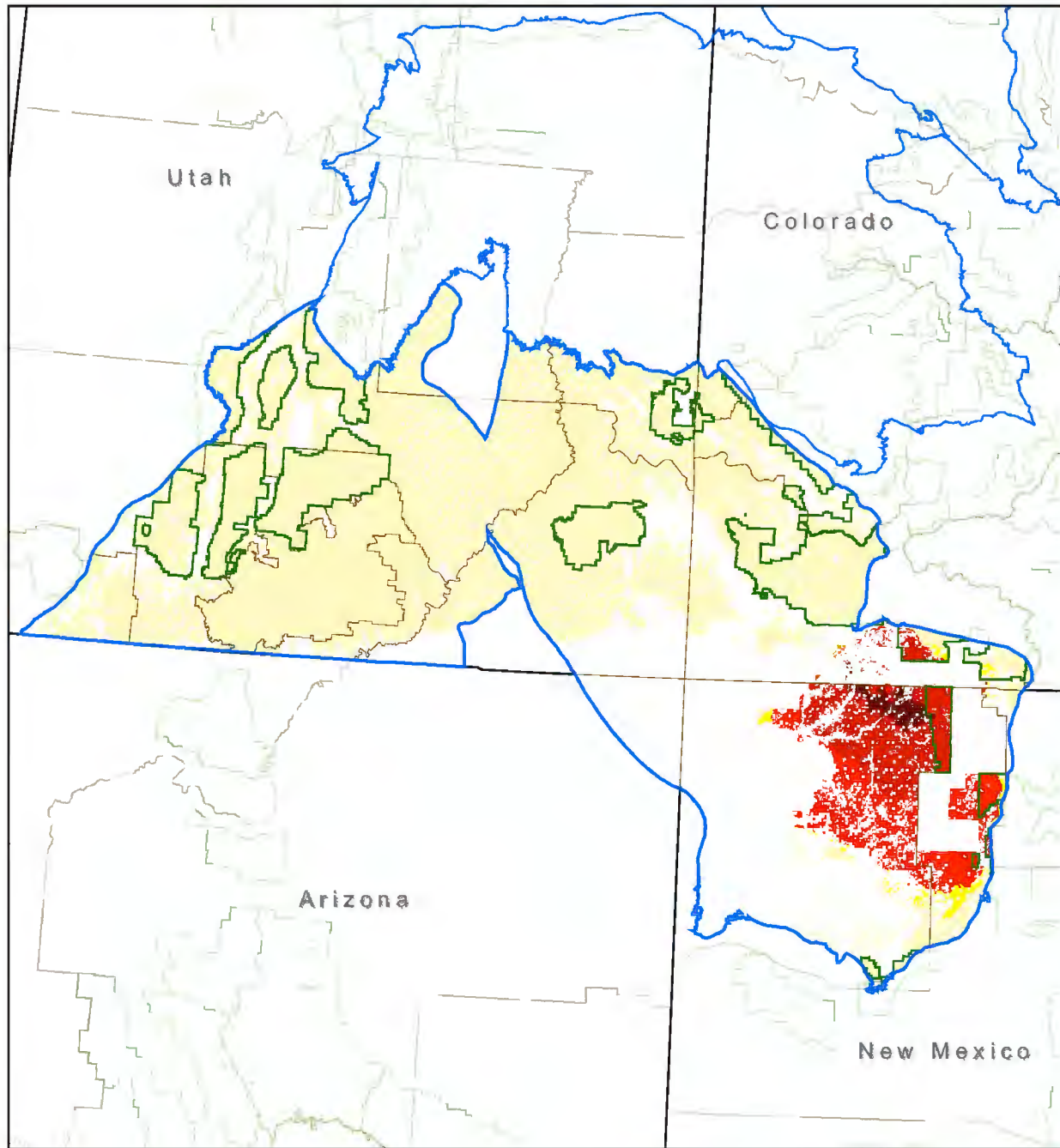


Total Liquids  
Thousands of Barrels Per Square Mile

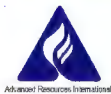
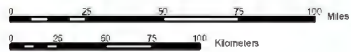
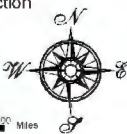


**Figure 3p** Access Map, Total Liquids – Montana Thrust Belt Study Area - Categories 1-10





- BLM Jurisdiction
- Forest Service Jurisdiction
- Oil and Gas Resource Study Areas



Total Gas  
Millions of Cubic Feet Per Square Mile

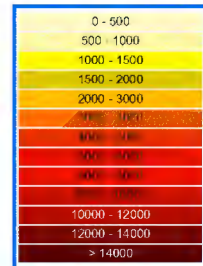
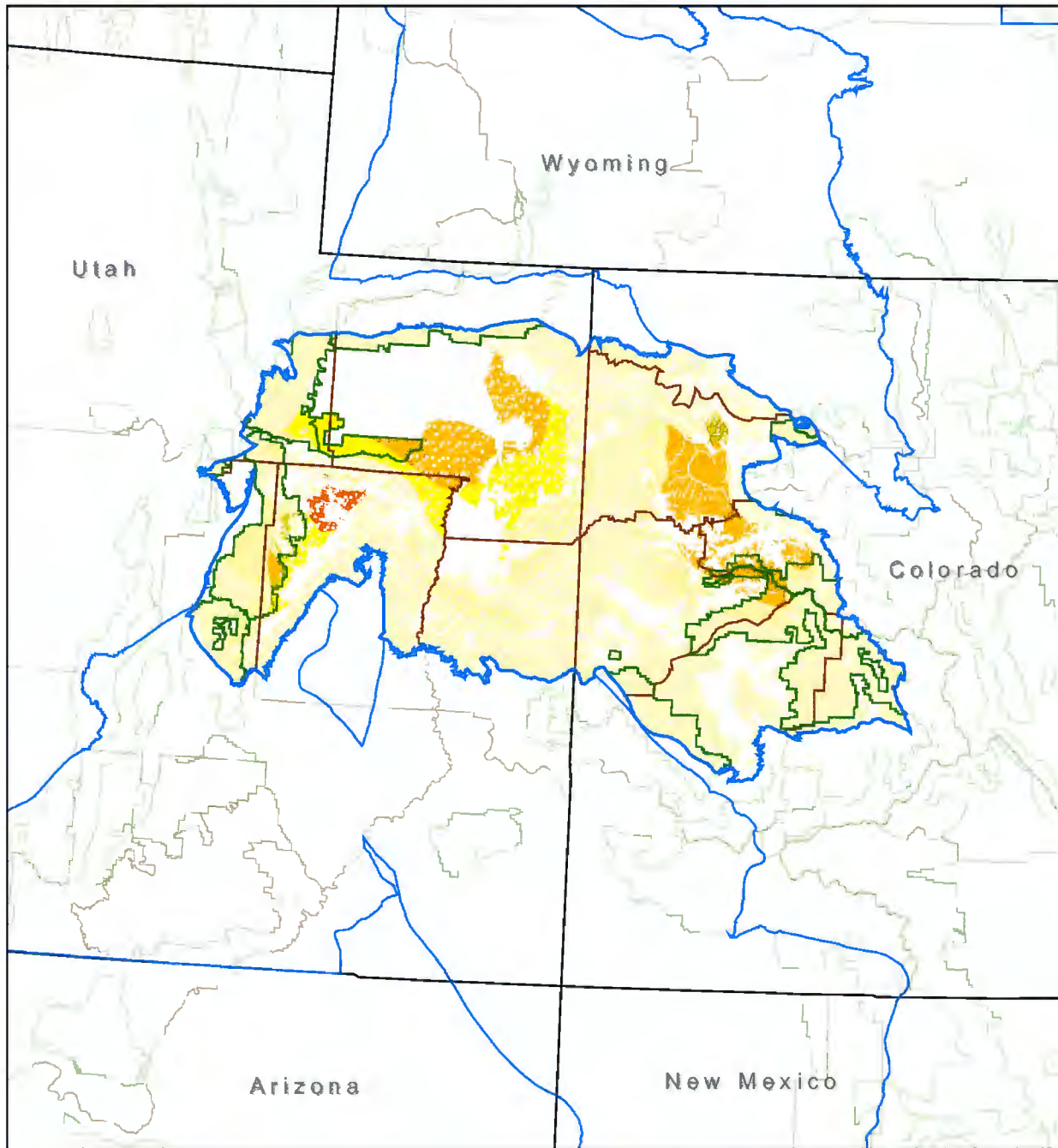



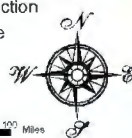


Figure 3q Access Map, Total Gas – Paradox/San Juan Study Areas - Categories 1-10

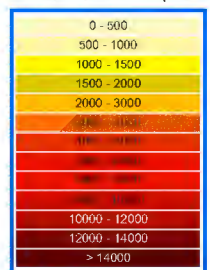
**Section 3  
Results**



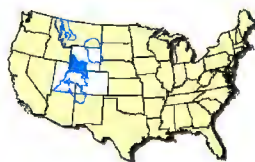
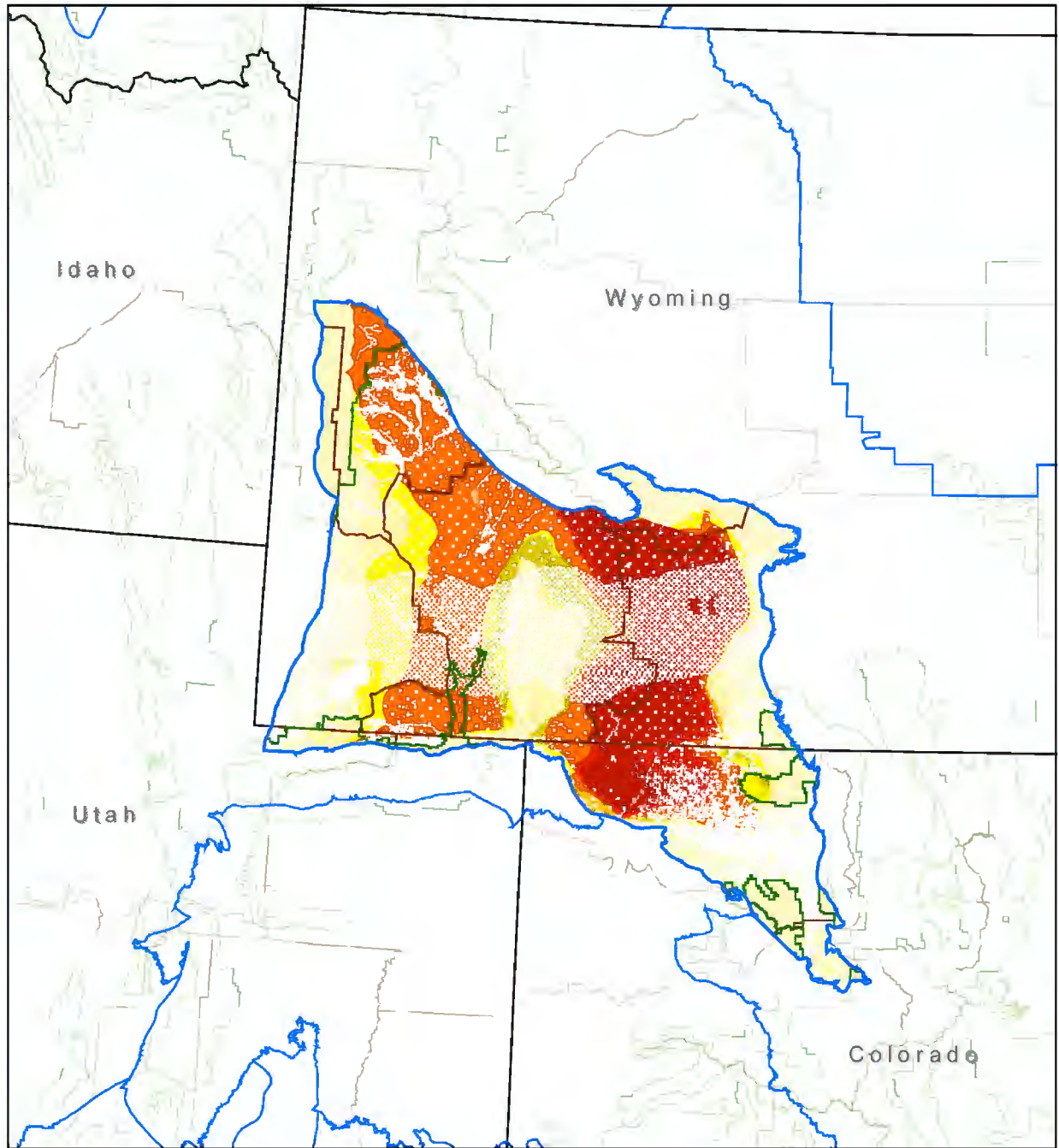
-  BLM Jurisdiction
-  Forest Service Jurisdiction
-  Oil and Gas Resource Study Areas



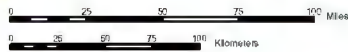
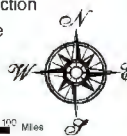
Total Gas  
Millions of Cubic Feet Per Square Mile



**Figure 3r** Access Map, Total Gas – Uinta/Piceance Study Areas - Categories 1-10



- BLM Jurisdiction
- Forest Service Jurisdiction
- Oil and Gas Resource Study Areas



Total Gas  
Millions of Cubic Feet Per Square Mile

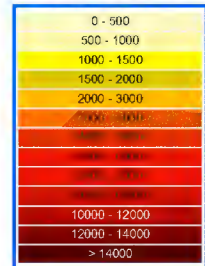
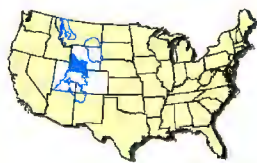
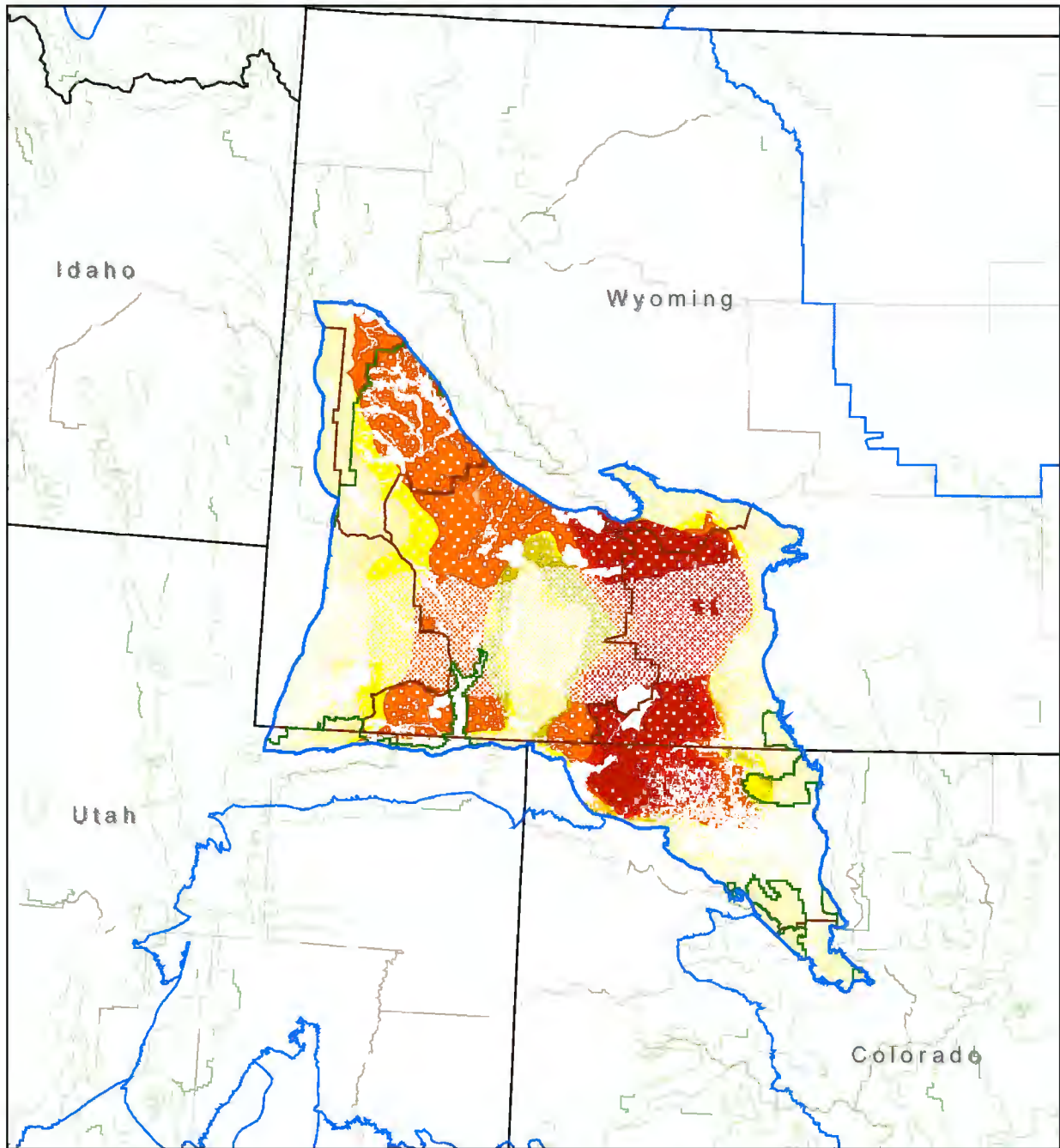


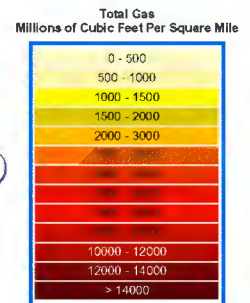
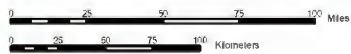
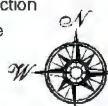
Figure 3s

Access Map, Total Gas – Greater Green River Study Area - Categories 1-10

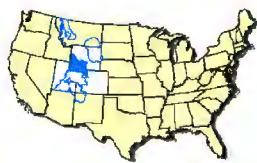
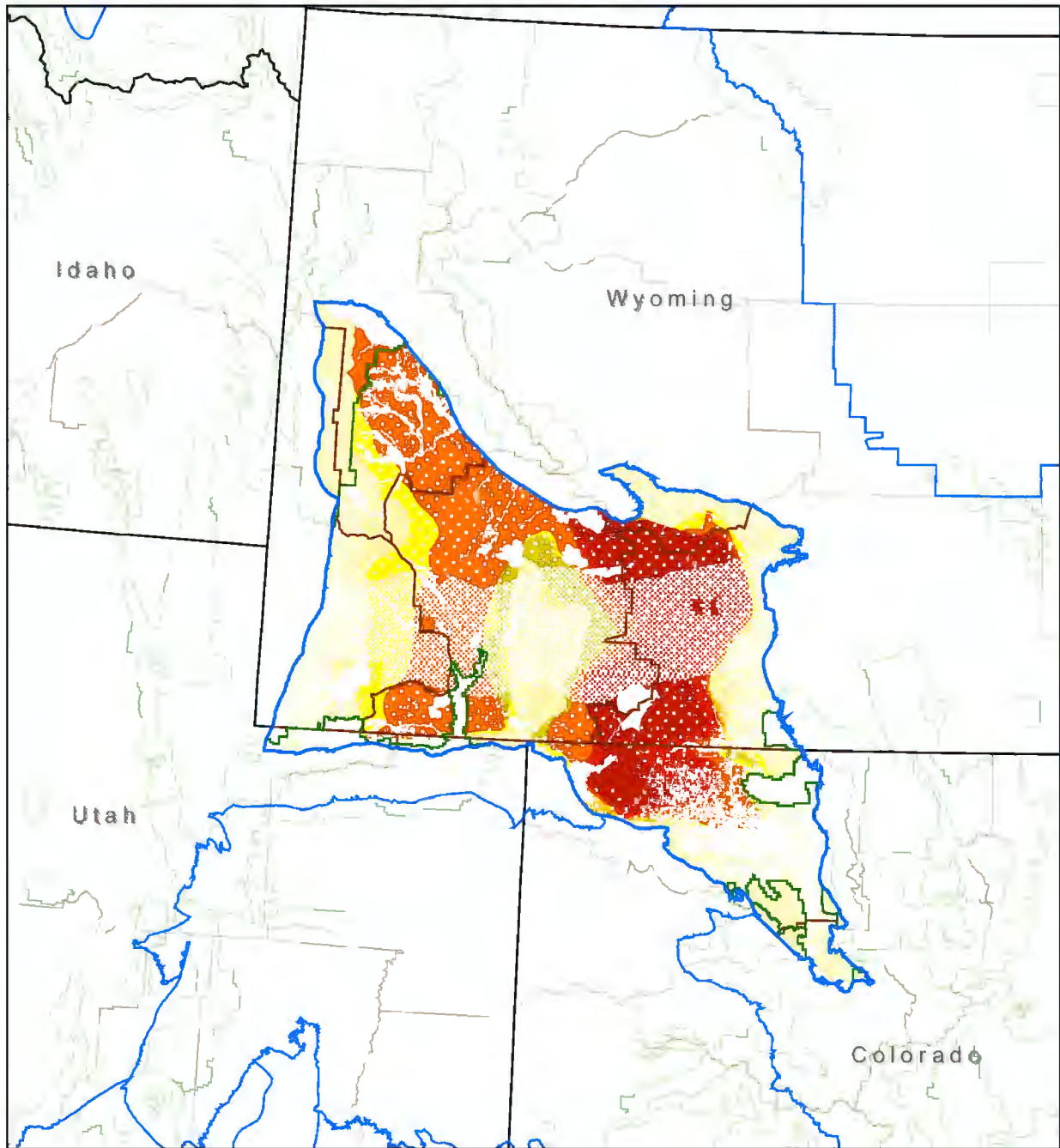
**Section 3  
Results**



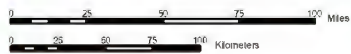
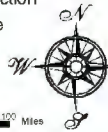
- BLM Jurisdiction
- Forest Service Jurisdiction
- Oil and Gas Resource Study Areas



**Figure 3t Access Map, Total Gas – Greater Green River Study Area -- Categories 2-10**



- BLM Jurisdiction
- Forest Service Jurisdiction
- Oil and Gas Resource Study Areas



Total Gas  
Millions of Cubic Feet Per Square Mile

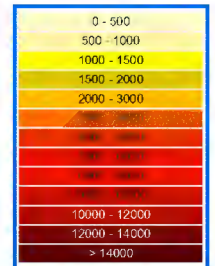
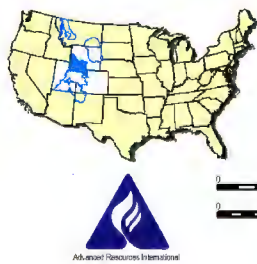
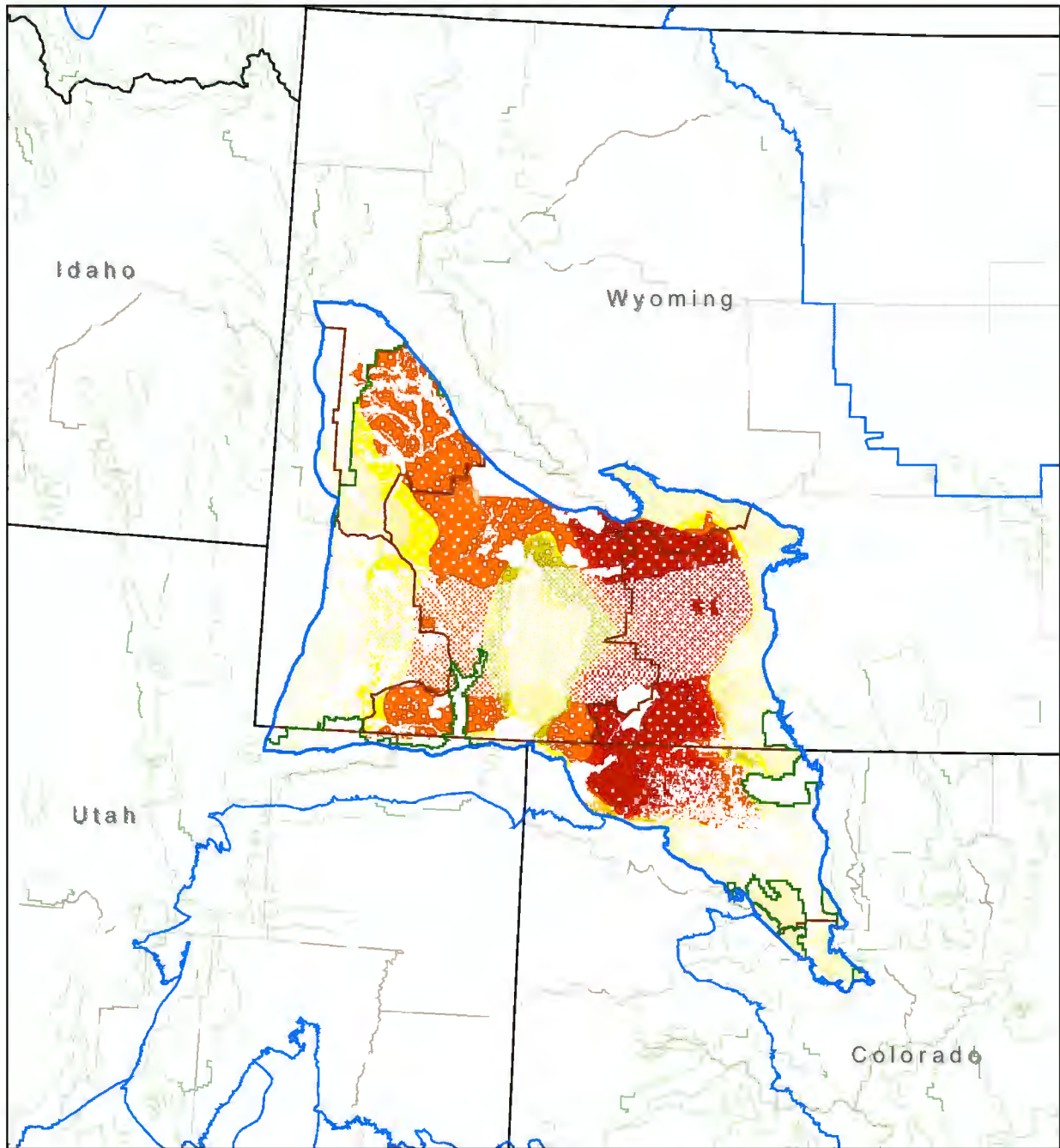
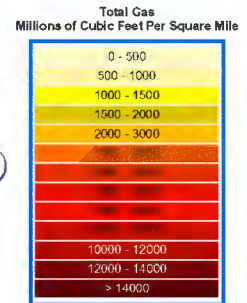
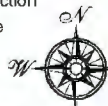
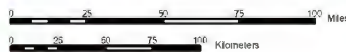


Figure 3u Access Map, Total Gas – Greater Green River Study Area - Categories 3-10

**Section 3  
Results**



- BLM Jurisdiction
- Forest Service Jurisdiction
- Oil and Gas Resource Study Areas



**Figure 3v** Access Map, Total Gas – Greater Green River Study Area - Categories 4-10

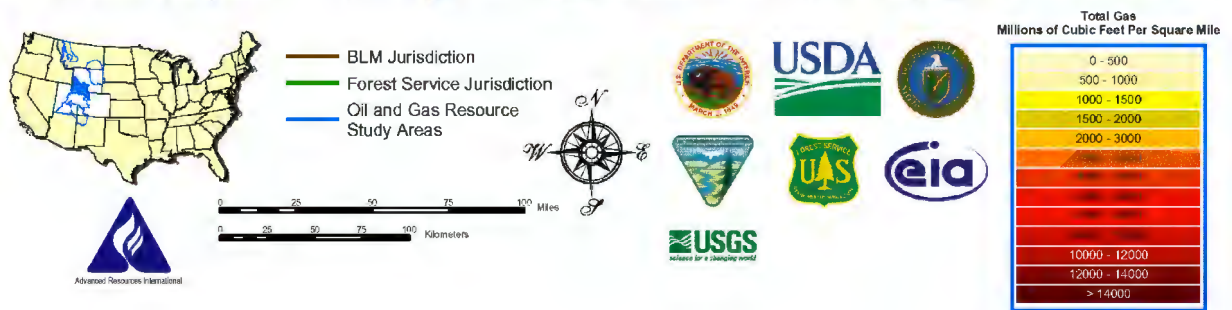
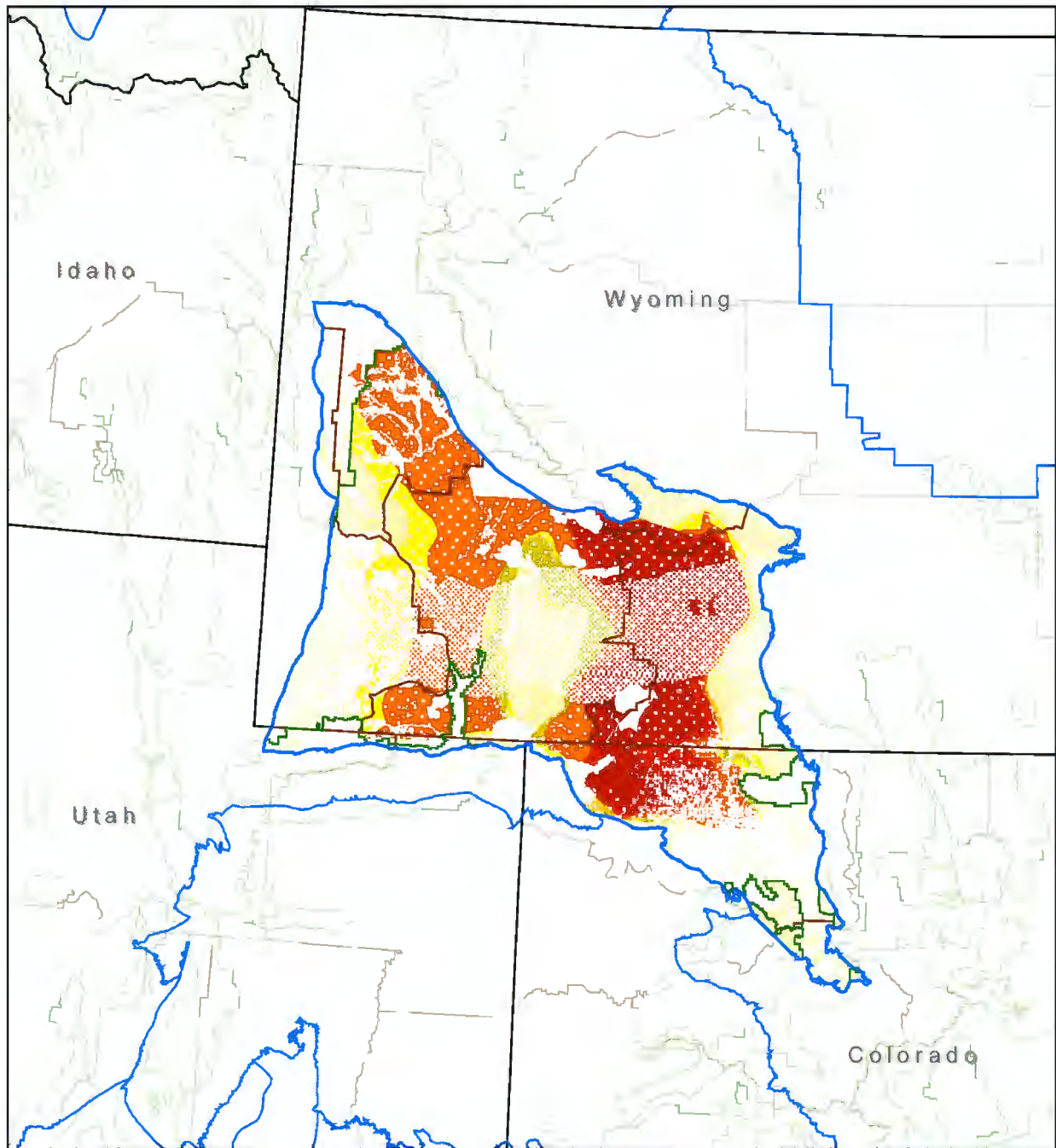
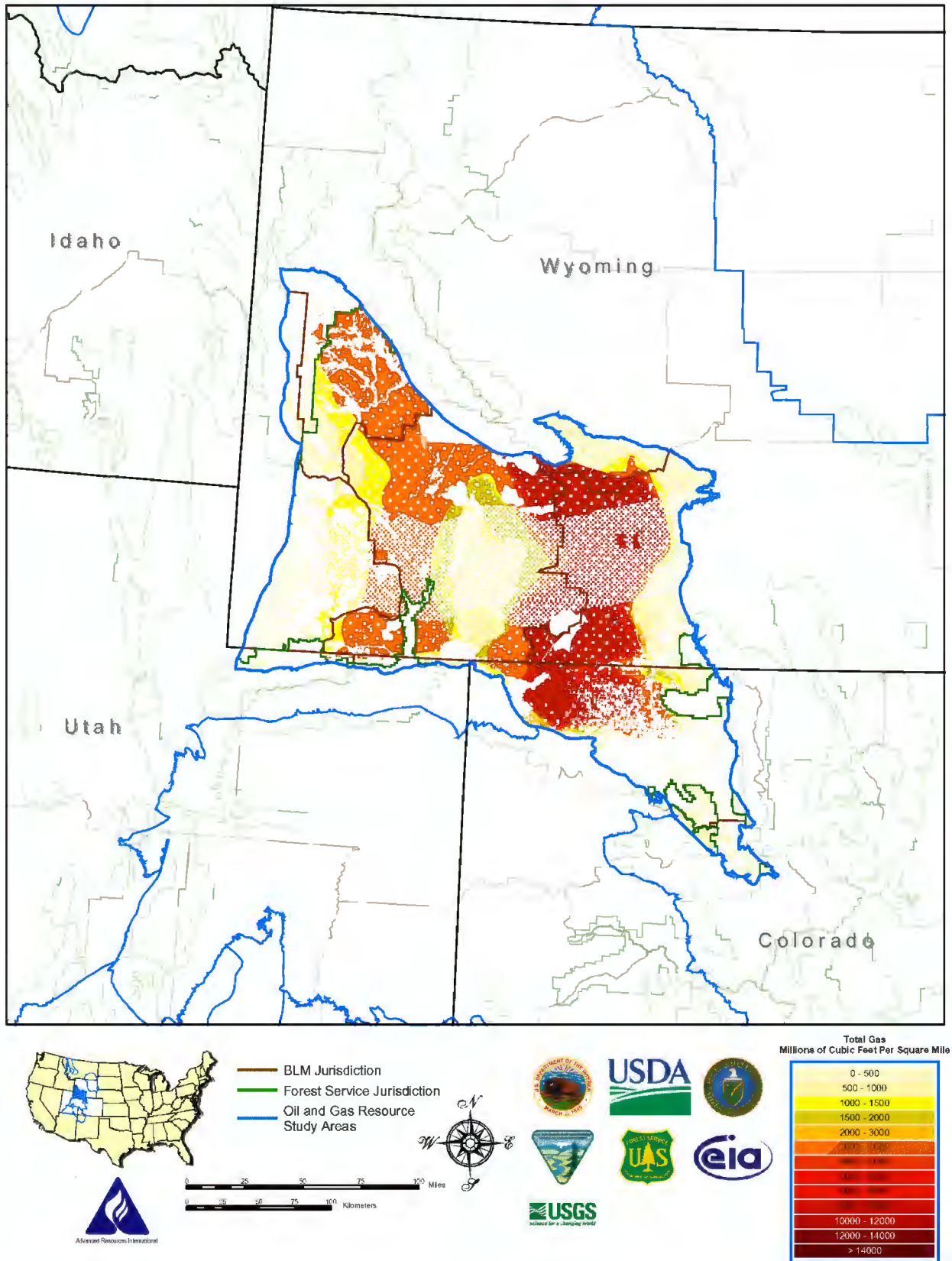


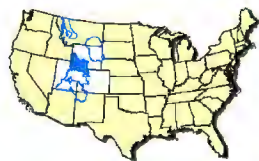
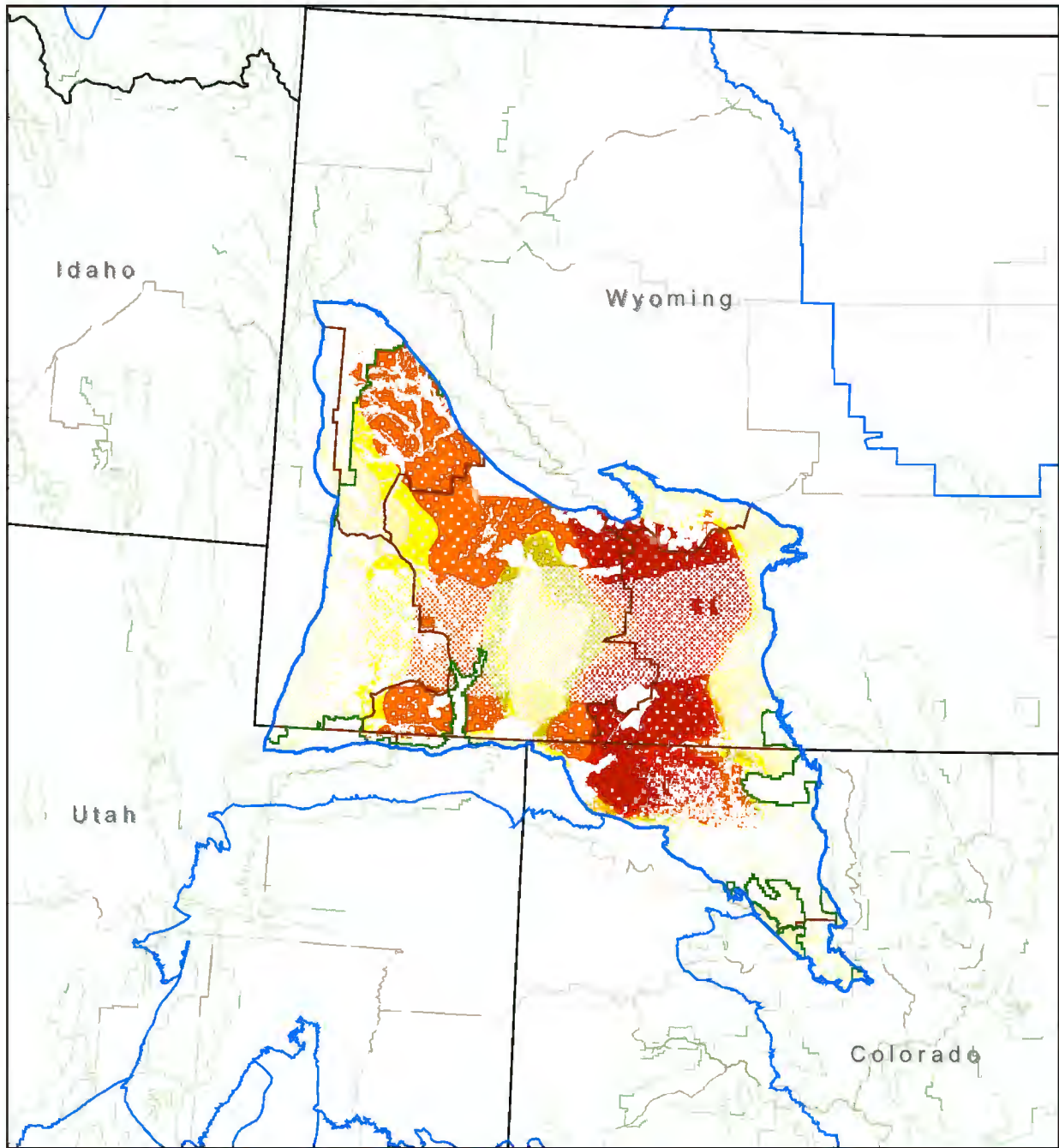
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**Section 3  
Results**

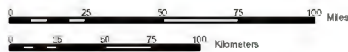
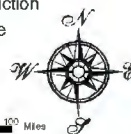


**Figure 3x Access Map, Total Gas, Greater Green River Study Area - Categories 6-10**





- BLM Jurisdiction
- Forest Service Jurisdiction
- Oil and Gas Resource Study Areas



Total Gas  
Millions of Cubic Feet Per Square Mile

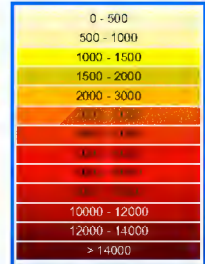
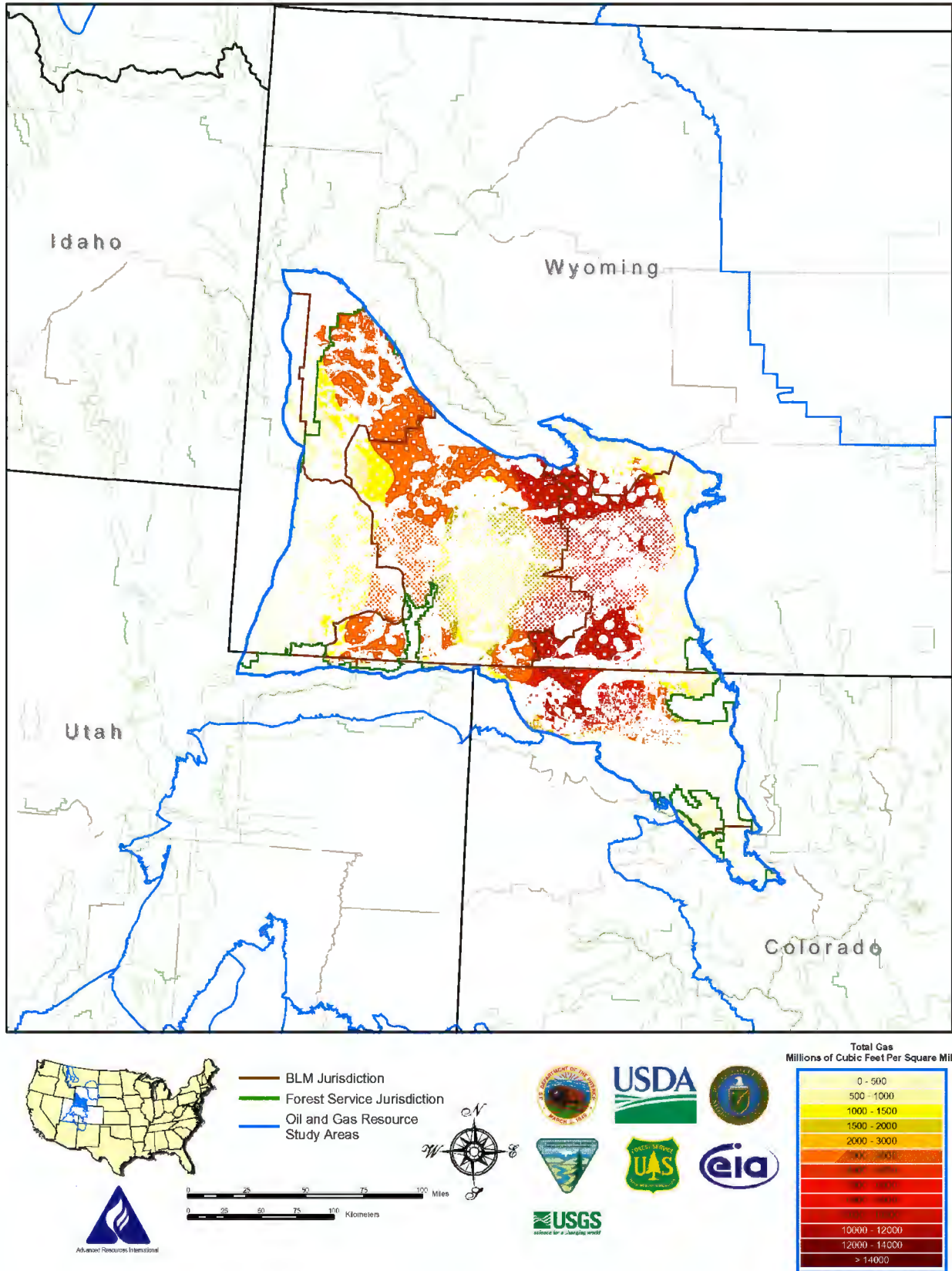
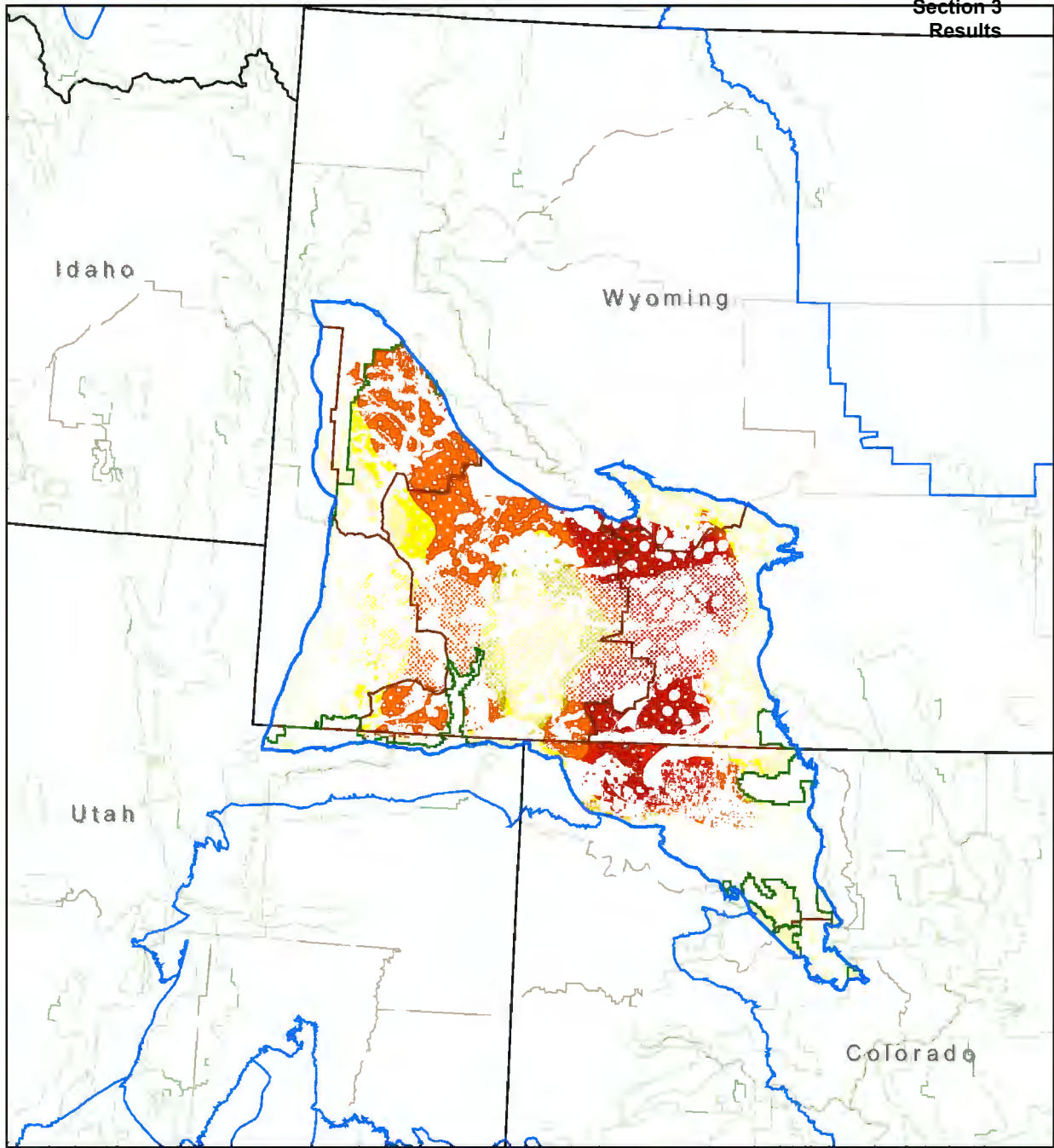


Figure 3y Access Map, Total Gas – Greater Green River Study Area - Categories 7-10

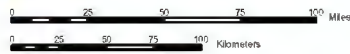
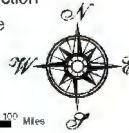
**Section 3  
Results**



**Figure 3z** Access Map, Total Gas – Greater Green River Study Area- Categories 8-10



- BLM Jurisdiction
- Forest Service Jurisdiction
- Oil and Gas Resource Study Areas



Total Gas  
Millions of Cubic Feet Per Square Mile

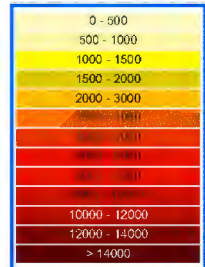
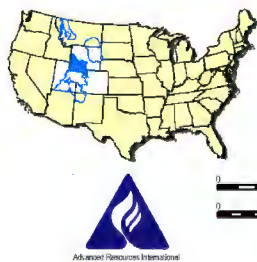
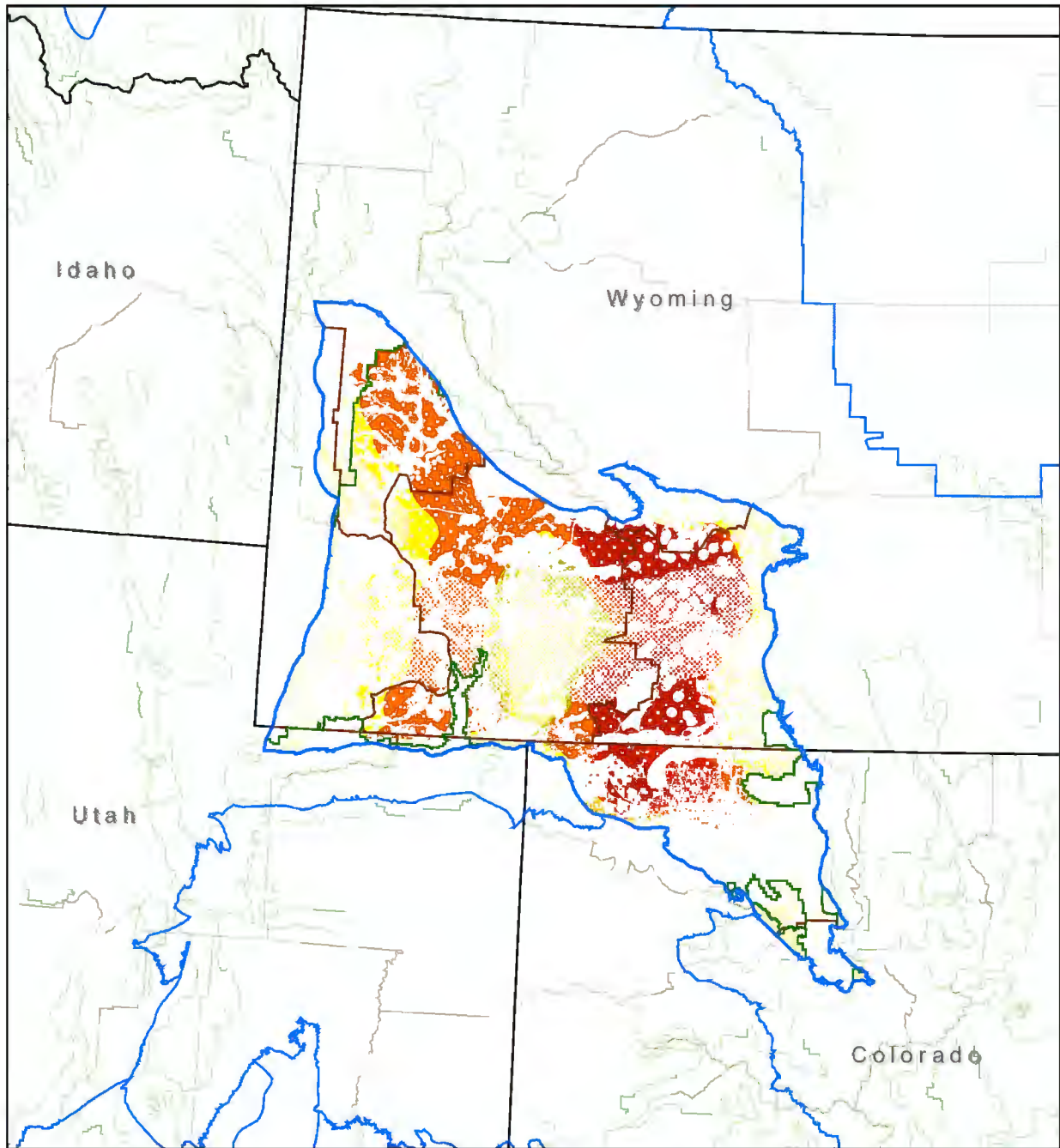
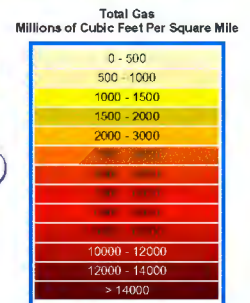


Figure 3aa Access Map, Total Gas – Greater Green River Study Area - Categories 9-10

**Section 3  
Results**



- BLM Jurisdiction
- Forest Service Jurisdiction
- Oil and Gas Resource Study Areas



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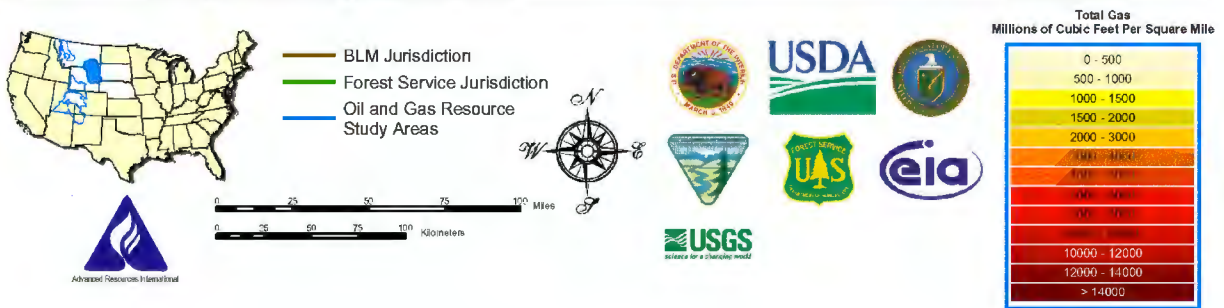
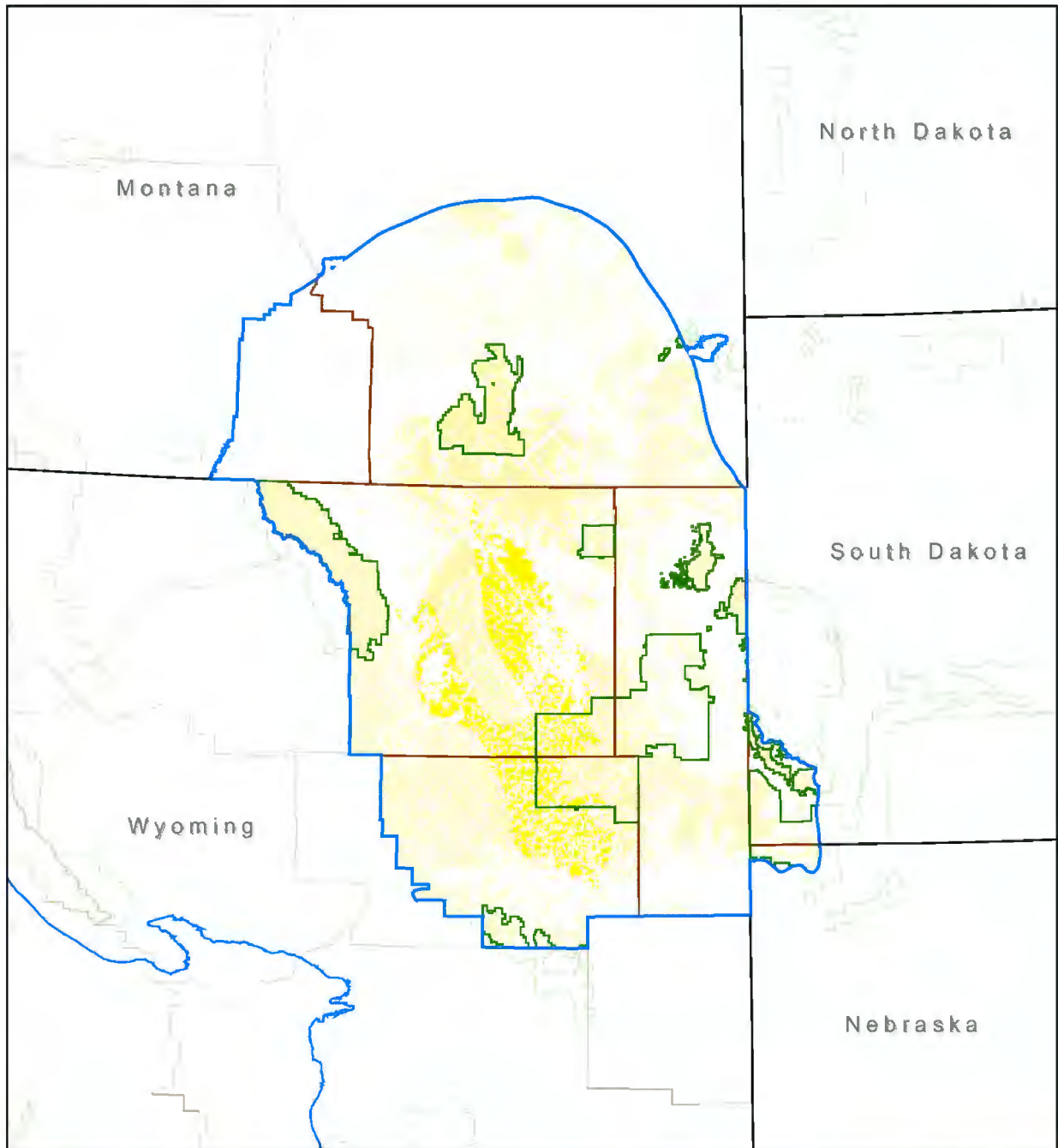
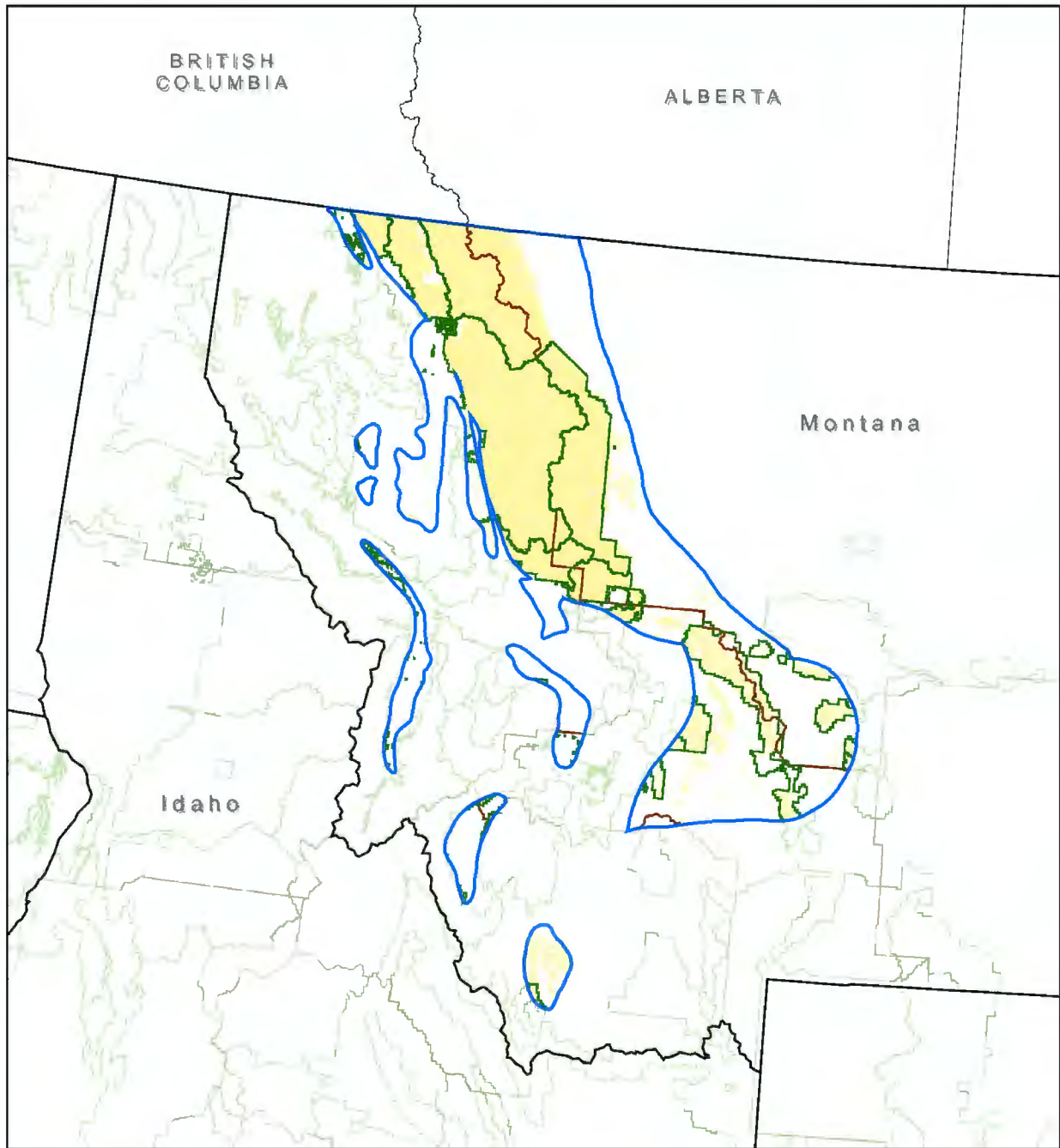
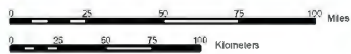


Figure 3ac Access Map, Total Gas -- Powder River Study Area - Categories 1-10

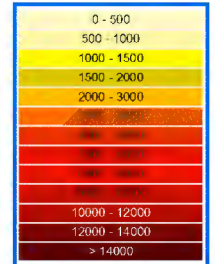
**Section 3  
Results**



- BLM Jurisdiction
- Forest Service Jurisdiction
- Oil and Gas Resource Study Areas



Total Gas  
Millions of Cubic Feet Per Square Mile



**Figure 3ad Access Map, Total Gas – Montana Thrust Belt Study Area - Categories 1-10**

## APPENDIX 1

### ACRONYMS AND ABBREVIATIONS

<b>AAPG</b>	American Association of Petroleum Geologists
<b>AD</b>	Associated Dissolved (natural gas)
<b>APD</b>	Application for Permit to Drill
<b>ARMP</b>	Approved Resource Management Plan
<b>bbbl</b>	Barrels (of oil)
<b>BLM</b>	Bureau of Land Management
<b>BOE</b>	Barrels of Oil Equivalent
<b>CBM</b>	Coal Bed Methane
<b>CEQ</b>	Council on Environmental Quality
<b>CFR</b>	Code of Federal Regulations
<b>CPAs</b>	Citizen's Proposal Areas
<b>CSU</b>	Control Surface Usage
<b>DEM</b>	Digital Elevation Model
<b>DOE</b>	Department of Energy
<b>DOI</b>	Department of the Interior
<b>EA</b>	Environmental Assessment
<b>EDZ</b>	Extended Drilling Zone
<b>EIA</b>	Energy Information Administration
<b>EIS</b>	Environmental Impact Statement
<b>EPCA</b>	Energy Policy and Conservation Act
<b>ESRI</b>	Environmental Systems Research Institute
<b>EUR</b>	Estimated Ultimate Recovery
<b>FDGC</b>	Federal Geographic Data Committee
<b>FEIS</b>	Final Environmental Impact Statement
<b>GCDB</b>	Geographic Coordinate Database
<b>GGR</b>	Greater Green River
<b>GGRB</b>	Greater Green River Basin
<b>GIS</b>	Geographic Information System
<b>GOR</b>	Gas to Oil Ratio
<b>LGR</b>	Liquids to Gas Ratio
<b>LR</b>	Legacy Rehost
<b>MFP</b>	Management Framework Plan
<b>MMS</b>	Minerals Management Service
<b>NA</b>	Non-Associated natural gas
<b>NEPA</b>	National Environmental Policy Act
<b>NF</b>	National Forest
<b>NGLs</b>	Natural Gas Liquids
<b>NHRP</b>	National Register of Historic Places
<b>NLA</b>	No Leasing, Administrative
<b>NLA/LUP</b>	No Leasing, Administrative/Land Use Planning
<b>NLS</b>	No Leasing, Statutory or Executive Order
<b>NPC</b>	National Petroleum Council

**Appendix 1**  
**Acronyms and Abbreviations**

<b>NSO</b>	No Surface Occupancy
<b>PLSS</b>	Public Land Survey System
<b>RA</b>	Recreation Areas
<b>RMP</b>	Resource Management Plan
<b>ROD</b>	Record of Decision
<b>ROW</b>	Right-of-Way
<b>RPD</b>	Reserves and Production Division of the EIA
<b>SLT</b>	Standard Lease Terms
<b>SUPO</b>	Surface Use Plan of Operations
<b>Tcf</b>	Trillion cubic feet of natural gas
<b>TL</b>	Timing Limitation
<b>TLS</b>	Timing Limitation Stipulation
<b>TPS</b>	Total Petroleum System
<b>URA</b>	Ultimate recovery appreciation
<b>USDA</b>	United States Department of Agriculture
<b>USDA-FS</b>	U.S. Department of Agriculture-Forest Service
<b>USFWS</b>	United States Fish and Wildlife Service
<b>USGS</b>	United States Geologic Survey
<b>WRAs</b>	Wilderness Reinventory Areas



## APPENDIX 2

### GLOSSARY OF TERMS

#### -A-

**Access Probability:** The probability, expressed as a decimal fraction, of sufficient access (political and physical) to a particular assessment unit within a given time frame for the activities necessary to find an accumulation of minimum size and to add its volume to proved reserves. The time frame for this assessment is 30 years.

**Accumulation:** Consists of two types: conventional and continuous. A conventional accumulation is an individual producing unit consisting of a single pool or multiple pools of petroleum grouped on, or related to, a single structural or stratigraphic feature. A continuous accumulation is also an individual producing unit but has a really extensive pool or pools of petroleum not necessarily related to structural or stratigraphic features.

**Affected Environment:** Surface or subsurface resources (including social and economic elements) within or adjacent to a geographic area that could potentially be affected by oil and gas activities; the environment of the area to be affected or created by the alternatives under consideration. (40 Code of Federal Regulations (CFR) 1502.15)

**Alternative:** A combination of management prescriptions applied in specific amounts and locations to achieve a desired management emphasis as expressed in goals and objectives. One of several policies, plans, or projects proposed for decision-making. An alternative need not substitute for another in all respects.

**Alternative, No Action:** An alternative that maintains established trends or management direction.

**Application:** A written request, petition, or offer to lease lands for the purpose of oil and gas exploration and/or the right of extraction.

**Application for Permit to Drill (APD):** An application to drill a well submitted by a lessee or operator to the BLM. The APD consists of a Drilling Plan that discusses downhole specifications and procedures (reviewed by the BLM) and a Surface Use Plan of Operations (SUPO) that examines surface uses, including access roads, well site layout, cut and fill diagrams, reclamation procedures, production facility locations, etc. (reviewed by the surface-managing agency). The approved APD is a contract between the operator and the Federal government and cannot be changed or modified unless authorized by the BLM and the surface-managing agency.

**Aquifer:** (1.) A layer of material that contains water. (2.) The part of a water-drive reservoir that contains the aquifer.

**Archeological/historic site:** A site that contains either objects of antiquity or cultural values relating to history and/or prehistory that warrant special attention.

**Assessment Unit Probability:** Represents the likelihood, expressed as a decimal fraction, that, in a given assessment unit, at least one undiscovered accumulation of a selected minimum size

## Appendix 2 Glossary of Terms

exists that has the potential for its volume to be added to proved reserves in a given time frame. The assessment unit probability is the product of the probabilities of the three geologic attributes (charge, rocks, and timing) and the probability of access.

**Associated/Dissolved Gas:** Natural gas that occurs in an oil accumulation, either as a free gas cap or in solution; synonymous with gas in oil accumulations.

### **-B-**

**Barrels of Oil Equivalent (BOE):** A unit of petroleum volume in which the gas portion is expressed in terms of its energy equivalent in barrels of oil. For this assessment, 6,000 cubic feet of gas equals 1 BOE.

**Basin:** 1. A depressed area with no surface outlet. 2. A low in the Earth's crust of tectonic origin in which sediments have accumulated.

**Big Game:** Larger species of wildlife that are hunted, such as elk, deer, bighorn sheep, and pronghorn antelope.

**Big Game Winter Range:** An area available to and used by big game (large mammals normally managed for sport hunting) through the winter season.

**Buffer Zone:** 1. An area between two different land uses that is intended to resist, absorb, or otherwise preclude developments or intrusions between the two use areas. 2. A strip of undisturbed vegetation that retards the flow of runoff water, causing deposition of transported sediment

**Bureau of Land Management:** The Department of the Interior agency responsible for managing most Federal onshore subsurface minerals. It also has surface management responsibility for Federal lands designated under the Federal Land Policy and Management Act of 1976.

### **-C-**

**Candidate Species:** 1. A species for which substantial biological information exists on file to support a proposal to list it as endangered or threatened, but for which no proposal has yet been published in the *Federal Register*. The list of candidate species is revised approximately every two years in the Notice of Review. 2. Any species not yet officially listed, but undergoing a status review or proposed for listing according to *Federal Register* notices published by the Secretary of the Interior or the Secretary of Commerce.

**Casing:** Steel pipe placed in an oil or gas well to prevent the hole from caving.

**Cell:** A subdivision or area within an assessment unit having dimensions related to the drainage areas of wells (not to be confused with finite-element cells). Three categories of cells are recognized: cells tested by drilling, untested cells, and untested cells having potential to provide additions to reserves within the forecast span of the assessment. A continuous-type assessment unit is a collection of petroleum-containing cells.

**Completion:** The activities and methods to prepare a well for production. Includes installation of equipment for production from an oil or gas well.

**Composite Total Petroleum System:** A mappable entity encompassing all or a portion of two or more total petroleum systems. Composite total petroleum systems are used when accumulations within an assessment unit are assumed to be charged by more than one source rock.

**Continuous-Type Accumulation:** A petroleum accumulation that is pervasive throughout a large area, that is not significantly affected by hydrodynamic influences, and for which the chosen methodology for assessment of sizes and number of discrete accumulations is not appropriate. Continuous-type accumulations lack well-defined down-dip water contacts. The terms “continuous-type accumulation” and “continuous accumulation” are used interchangeably.

**Controlled Surface Use (CSU):** Allowed use and occupancy (unless restricted by another stipulation) with identified resource values requiring special operational constraints that may modify the lease rights. CSU is used as an operating guideline, not as a substitute for NSO or Timing Lease (TL) stipulations.

**Conventional Accumulation:** A discrete accumulation, commonly bounded by a down-dip water contact that is significantly affected by the buoyancy of petroleum in water. This geologic definition does not involve factors such as water depth, regulatory status, or engineering techniques.

**Council on Environmental Quality (CEQ):** An advisory council to the President established by the National Environmental Policy Act of 1969. It reviews Federal programs for their effect on the environment, conducts environmental studies, and advises the President on environmental matters.

**Crucial Winter Range:** Winter habitat on which a wildlife species depends for survival. Because of severe weather conditions or other limiting factors, no alternative habitat would be available.

**Cultural Resources:** Those fragile and nonrenewable physical remains of human activity, occupation, or endeavor reflected in districts, sites, structures, buildings, objects, artifacts, ruins, works of art, architecture, burial mounds, petroglyphs, and natural features that were of importance in past human events. These resources consist of (1) physical remains; (2) areas where significant human events occurred, even though evidence of the event no longer remains; and (3) the environment immediately surrounding the resource. Cultural resources are commonly discussed in terms of prehistoric and historic values; however, each period represents a part of the full continuum of cultural values from the earliest to the most recent.

**Cumulative Petroleum Production:** Reported cumulative volume of petroleum that has been produced. Cumulative oil, cumulative gas, and cumulative production are sometimes used as abbreviated forms of this term.

## **-D-**

**Directional Drilling:** The intentional deviation of a wellbore from vertical to reach subsurface areas off to one side from the drilling site.

**Appendix 2**  
**Glossary of Terms**

**-E-**

**Endangered Species:** As defined in the Federal Endangered Species Act, any species that is in danger of extinction throughout all or a significant portion of its range. For terrestrial species, the U.S. Fish and Wildlife Service determines *endangered* status.

**Environmental Assessment (EA):** A public document for which a Federal agency is responsible that serves to: (1) briefly provide sufficient evidence and analysis for determining whether to prepare an Environmental Impact Statement (EIS) or a finding of no significant impact; (2) help an agency comply with the NEPA when no EIS is necessary; and (3) facilitate the preparation of an EIS when one is necessary. An EA includes brief discussions of the need for the proposal and of the environmental impacts of the proposed action and other alternatives.

**Environmental Impact Statement (EIS):** A written analysis of the impacts on the natural, social, and economic environment of a proposed project or resource management plan.

**Estimated Ultimate Recovery (EUR):** The total expected recoverable volume of oil, gas, and natural gas liquids production from a well, lease, or field under present economic and engineering conditions; synonymous with total recovery.

**-F-**

**Federal Land:** For the purpose of the EPCA study, land owned by the United States, without reference to how the land was acquired or which Federal agency administers the surface; includes mineral estates underlying private surface.

**Field:** A production unit consisting of a collection of oil and gas pools that, when projected to the surface, form an approximately contiguous area that can be circumscribed.

**Field Growth:** The increases in known petroleum volume that commonly occur as oil and gas fields are developed and produced; synonymous with reserve growth.

**Forecast Span:** A specified future time span in which petroleum accumulations have the potential to provide additions to reserves. A 30-year forecast span is used in the USGS assessments, which affects (1) the minimum undiscovered accumulation size, (2) the number of years in the future that reserve growth is estimated, (3) economic assessments, (4) the accumulations that are chosen to be considered, and (5) the risking structure as represented by access risk.

**Forest Plan:** A plan for a unit of the National Forest system that provides for USDA-FS administered lands in the planning area included.

**Forest Service (USDA-FS):** The agency of the United States Department of Agriculture responsible for managing National Forests and Grasslands under the Multiple Use and Sustained Yield Act of 1960.

**-G-**

**Gas Accumulation:** An accumulation with a gas to oil ratio of 20,000 cubic feet/barrel or greater.

**Gas in Gas Accumulations:** Gas volumes in gas accumulations.

**Gas in Oil Accumulations:** Gas volumes in oil accumulations.

**Gas to Oil Ratio (GOR):** The ratio of gas to oil (in cubic feet/barrel) in an accumulation. GOR is calculated using known gas and oil volumes at surface conditions.

**Geographic Information System (GIS):** In the strictest sense, a computer system capable of assembling, storing, manipulating, and displaying geographically referenced information, i.e., data identified according to their locations.

**Geologic Province:** A USGS-defined area having characteristic dimensions of perhaps hundreds to thousands of kilometers encompassing a natural geologic entity (for example, a sedimentary basin, thrust belt, or delta) or some combination of contiguous geologic entities.

**Geospatial:** Information that identifies the geographic location and characteristics of natural or constructed features and boundaries on the earth. This information may be derived from remote sensing, mapping, and surveying technologies, or from other sources.

**Grown Petroleum Volume:** Known petroleum volume adjusted upward to account for future reserve growth. Thirty years of reserve growth is considered for the USGS assessments.

## **-H-**

**Habitat:** A specific set of physical conditions that surround a single species, a group of species, or a large community. In wildlife management, the major components of habitat are considered to be food, water, cover, and living space.

## **-I-**

## **-J-**

## **-K-**

**Known Petroleum Volume:** The sum of cumulative production and remaining reserves as reported in the databases used in support of an assessment. Also called estimated total recoverable volume (sometimes called "ultimate recoverable reserves" or "estimated ultimate recovery").

## **-L-**

**Landscape:** A relatively large area of land with common climate, geology, and soils containing predictably occurring terrain features such as slopes, drainage channels, rock outcrops, etc.

**Lease:** An authorization to possess and use public land for a period of time sufficient to amortize capital investments in the land.

**Appendix 2**  
**Glossary of Terms**

**Lease Stipulations:** See Stipulations.

**Liquids to Gas Ratio (LGR):** Ratio of total petroleum liquids (including oil, condensate, and natural gas liquids) to gas (in barrels/million cubic feet) in a gas accumulation. The LGR is calculated using known petroleum liquids and gas volumes at surface conditions. This ratio is used to assess the liquid co-products associated with undiscovered gas in gas accumulations.

**-M-**

**Mineral:** Organic and inorganic substances occurring naturally, with characteristics and economic uses that bring them within the purview of mineral laws; a substance that may be obtained under applicable laws from public lands by purchase, lease, or pre-emptive entry.

**Minimum Accumulation Size:** The smallest accumulation size (volume of oil in oil accumulations or volume of gas in gas accumulations) that is considered in the assessment process for conventional accumulations.

**Minimum Petroleum System:** The mappable part of a total petroleum system for which the presence of essential elements has been proved by discoveries of petroleum shows, seeps, and accumulations.

**Minimum Total Recovery Per Cell:** The smallest total recovery per cell (volume of oil or gas) that is considered in the assessment process for continuous-type accumulations.

**Mitigation:** Includes the following:

- (1) Avoiding an impact altogether by not taking a certain action or parts of an action.
- (2) Minimizing impacts by limiting the degree of magnitude of the action and its implementation.
- (3) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
- (4) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- (5) Compensating for the impact by replacing or providing substitute resources or environments.

**Monitoring:** The orderly collection, analysis, and interpretation of resource data to evaluate progress toward meeting resource management objectives.

**-N-**

**National Environmental Policy Act (NEPA):** The law that requires a process to assess and document the environmental and social impacts of federal actions. This act establishes policy, sets goals, and provides different ways to carry out the policy.

**National Forest:** A forest or watershed reservation that is administered by the United States Department of Agriculture-Forest Service for multiple uses, including grazing, logging, and recreation.

**National Register of Historic Places (NRHP):** A Federal Government list of “. . . districts, sites, buildings, structures, and other objects significant in American history, architecture, archeology, and culture.” The National Register is maintained by the National Park Service, U.S. Department of the Interior, and is published in its entirety in the *Federal Register* each year in February.

**Natural Gas Liquids (NGL):** Petroleum that occurs naturally as a gas in the reservoir, but that is a liquid under surface conditions. Natural gas liquids are typically reported separately from crude oil.

**Natural Gas Liquids to Gas Ratio (for oil accumulations):** Ratio of natural gas liquids to gas (in barrels/million cubic feet) in an oil accumulation, calculated using known natural gas liquids and gas volumes at surface conditions. This ratio is used to assess the natural gas liquids associated with undiscovered gas in oil accumulations.

**Non-Associated Gas:** Natural gas that occurs in a gas accumulation; synonymous with gas in gas accumulations.

**No Surface Occupancy (NSO):** A no surface occupancy area where no surface-disturbing activities *of any nature or for any purpose* are allowed. For example, construction or the permanent or long-term placement of structures or other facilities for any purpose would be prohibited in an NSO area. It is also used as a stipulation or mitigation requirement for controlling or prohibiting selected land uses or activities that would conflict with other activities, uses, or values in a given area. When used in this way, the NSO stipulation or mitigation requirement is applied to prohibit one or more specific types of land and resource development activities or surface uses in an area, while other—perhaps even similar— types of activities or uses (for other purposes) would be allowed. For example, protecting important rock art relics from destruction may require closing the area to the staking of mining claims and surface mining, off-road vehicle travel, construction or long-term placement of structures or pipelines, power lines, general purpose roads, and livestock grazing. Conversely, the construction of fences (to protect rock art from vandalism or from trampling or breakage by livestock), an access road or trail, and other visitor facilities to provide interpretation and opportunity for public enjoyment of the rock art would be allowed. Additionally, if there were potential and interest for leasing and development of leasable minerals in the area, then leases for gas and oil, coal, etc., could be issued with a "no surface occupancy" stipulation or mitigation requirement for the rock art site, which would still allow access to the leasable minerals from adjacent lands and underground. The term "no surface occupancy" has no relationship or relevance to the presence of people in an area.

**Notice:** The communication of a pending Federal action; the notification to parties of Federal actions about to be taken. This is a part of due process.

**-O-**

**Occupancy:** Actual possession and use of land in something more than a slight or sporadic manner. As defined as a multiple use component, it is the management of public lands for

## **Appendix 2**

### **Glossary of Terms**

occupancy involving the protection, regulated use, and development of lands as sites for economically and socially useful structures, either publicly or privately owned.

**Oil Accumulation:** An accumulation with a gas to oil ratio of less than 20,000 (in cubic feet/barrel).

**Oil in Gas Accumulations:** Oil volumes in gas accumulations. For this assessment, oil in gas accumulations were calculated along with other liquids rather than separately.

**Oil in Oil Accumulations:** Oil volumes in oil accumulations.

**Operator:** An individual, group, association, or corporation authorized to conduct, for example, livestock grazing or oil and gas drilling on public lands.

### **-P-**

**Petroleum:** A collective term for oil, gas, natural gas liquids, and tar.

**Play:** A set of known or postulated oil and gas accumulations sharing similar geologic, geographic, and temporal properties, such as source rock, migration pathway, timing, trapping mechanism, and hydrocarbon type. A play may or may not differ from an assessment unit; an assessment unit can include one or more plays.

**Proposed Species:** A species of plant or animal formally proposed by the U.S. Fish and Wildlife Service (USFWS) to be listed as threatened or endangered under the Endangered Species Act.

**Proved Reserves:** Quantities of crude oil, natural gas, or natural gas liquids that geological and engineering data demonstrate with reasonable certainty (defined as 90 percent or more probable) to be recoverable in future years from known reservoirs under existing economic and operating conditions.

**Public Lands:** Any land and interest in land owned by the United States that are administered by the Secretary of the Interior through the BLM, without regard to how the United States acquired ownership, except for (1) lands located on the Outer Continental Shelf and (2) lands held for the benefit of Indians, Aleuts, and Eskimos; includes public domain and acquired lands (see definitions). Vacant, unappropriated, and unreserved public lands, or public lands withdrawn by Executive Order 6910 of November 26, 1934, as amended, or by Executive Order 6964 of February 5, 1935, as amended, and not otherwise withdrawn or reserved, or public lands within grazing district established under Section 1 of the Act of June 28, 1934 (48 Stat. 1269), as amended, and not otherwise withdrawn or reserved.

### **-Q-**

### **-R-**

**Remaining Petroleum Reserves:** Volume of petroleum in discovered accumulations that has not yet been produced. Remaining reserves is sometimes used as an abbreviated form of this term.



**Reserve Growth:** The increases in known petroleum volume that commonly occur as oil and gas accumulations are developed and produced; synonymous with field growth.

**Resource Management Plan (RMP):** A plan that provides the basic, general direction and guidance for BLM-administered public lands in the planning area involved.

**Right-of-Way (ROW):** A permit or easement which authorizes the use of public land for certain specified purposes, commonly for pipelines, roads, telephone lines, etc.; also, the lands covered by such an easement or permit. Does not grant an estate or any kind, only the right of use. May also include a site.

**Riparian Areas:** The vegetation along the banks of rivers and streams and around springs, bogs, wet meadows, lakes, and ponds.

**Roadless:** Refers to an absence of roads that have been constructed and maintained by mechanical means to ensure regular and continuous use.

**Roads:** Vehicle routes that have been improved and maintained by mechanical means to ensure relatively regular and continuous use. (A way maintained strictly by the passage of vehicles does not constitute a road.)

## **-S-**

**Sense of Place:** Sense of place offers a holistic interpretation of a geographic place. It synthesizes a complex grouping of meanings, symbols, values, and feelings associated with a particular locality. It can include social, political, economic, aesthetic, occupational, biological, physical, etc. information, which can be drawn on an individual, community, and/or regional basis. Sense of place combines (1) contemporary (present-day) attachment, (2) traditional cultural use and attachment (perhaps by American Indians or other cultural/ethnic groups), and (3) cultural and heritage sites, properties, and districts.

**Shapefile:** GIS file format usable with ESRI (such as ArcView) and other commercial GIS software. It is a nontopological data structure that does not explicitly store topological relationships. However, unlike other simple graphic data structures, one or more rings represent shapefile polygons. A ring is a closed, non-self-intersecting loop. This structure can represent complex structures, such as polygons, that contain “islands.” The vertices of a ring maintain a consistent, clockwise order so that the area to the right, as one “walks” along the ring boundary, is inside the polygon, while the area to the left is outside the polygon.

**Split Estate:** Federal mineral estate administered by the BLM, which is under either private lands, State lands, or lands administered by another Federal agency. On split estate lands, the surface owner or managing agency controls the surface uses but the mineral estate is the dominant estate. However, the BLM coordinates with surface owners on mineral leasing and development. In a few cases, the BLM administers the surface, but the minerals are owned by the State or a private entity.

## Appendix 2 Glossary of Terms

**Stipulations**<sup>□</sup>: Conditions, promises, or demands added to a lease when the environmental and planning record demonstrates the necessity for the stipulations. Stipulations, as such, are neither “standard” nor “special”; they are a necessary modification of the terms of the lease. In order to accommodate the variety of resources encountered on Federal lands, stipulations are categorized as to how the stipulation modifies the lease rights, not by the resource(s) to be protected. What, why, and how this mitigation/protection is to be accomplished is determined by the land management agency through land use planning and NEPA analysis.

If, upon weighing the relative resource values, uses, and/or users, conflict with oil and gas operations is identified that cannot be adequately managed and/or accommodated on other lands, then a lease stipulation is necessary. Land use plans serve as the primary vehicle for determining the necessity for lease stipulations. Documentation of the necessity for a stipulation is disclosed in planning documents or through site-specific analysis. Land use plans and/or NEPA documents also establish the guidelines under which future waivers, exceptions, or modifications may be granted.

Substantial modification or waiver of stipulations subsequent to lease issuance is subject to public review for at least a 30-day period in accordance with Section 5102.f of the Federal Onshore Oil and Gas Leasing Reform Act of 1987 (FOLRA). Stipulations may be necessary if the authority to control the activity on the lease does not already exist under laws, regulations, or orders. An authorized Federal officer has the authority to modify the site location and design of facilities, control the rate of development and timing of activities, and require other mitigation under standard lease term. The necessity for individual lease stipulations is documented in the lease-file record with reference to the appropriate land use plan or other leasing analysis document. The necessity for exceptions, waivers, or modifications is documented in the lease-file record through reference to the appropriate plan or other analysis.

**Study Areas:** The Paradox/San Juan, Uinta/Piceance, Greater Green River, and Powder River Basins, and the Montana Thrust Belt, which were selected as the resource provinces of the study and comprise the areas of these resource provinces underlain by oil and/or natural gas resources based upon USGS analysis.

**Subsurface Allocation:** An allocation of potential additions to reserves to land entities based on subsurface ownership of mineral rights.

**Surface Allocation:** An allocation of potential additions to reserves to land entities based on surface ownership.

**Sweet Spot:** An area within a continuous-type deposit where production characteristics are relatively more favorable.

**-T-**

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<sup>□</sup> Taken from the booklet, “Uniform Format for Oil and Gas Lease Stipulations,” prepared by the Rocky Mountain Regional Coordinating Committee in March 1989. These guidelines were developed by the BLM and USDA-FS.

**Technically Recoverable Resources:** In-place resources that are producible using current recovery technology but without reference to economic profitability. These are oil and natural gas resources that may be produced at the surface from a well as a consequence of natural pressure within the subsurface reservoir, artificial lifting of oil from the reservoir to the surface, and the maintenance of reservoir pressure by fluid injection. These resources are generally conceived as existing in accumulations of sufficient size to be amenable to the application of existing recovery technology.

**Timing Limitation:** Prohibits surface use during specified time periods to protect identified resource values. The stipulation does not apply to the operation and maintenance of production facilities unless the findings of analysis identify the continued need for such mitigation and demonstrate that less stringent, project-specific mitigation measures would be insufficient. Also called a Seasonal Restriction.

**Total Petroleum System (TPS):** A mappable entity encompassing genetically related petroleum that occurs in seeps, shows, and accumulations (discovered or undiscovered) that have been generated by a pod or by closely related pods of mature source rock, together with the essential mappable geologic elements (source, reservoir, seal, and overburden rocks) that controlled fundamental processes of generation, migration, entrapment, and preservation of petroleum.

**Total Recovery:** The total expected recoverable volume of oil, gas, and natural gas liquids production from a well, lease, or field under present economic and engineering conditions; synonymous with estimated ultimate recovery.

## **-U-**

**Ultimate Recovery Appreciation (URA):** The generally observed increase of Estimated Ultimate Recovery (EUR) over time.

**Undiscovered Petroleum Resources:** Resources postulated from geologic information and theory to exist outside of known oil and gas accumulations.

**USGS-Assessed Petroleum Volumes:** The quantities of oil, gas, and natural gas liquids that have the potential to be added to reserves within some future time frame, which for this assessment is 30 years. The USGS assessed petroleum volumes include both those from undiscovered accumulations, whose sizes are greater than or equal to the selected minimum accumulation size, and those from the reserve growth of fields already discovered.

## **-V-**

## **-W-**

**Wetlands:** Permanently wet or intermittently flooded areas where the water table (fresh, saline, or brackish) is at, near, or above the soil surface for extended intervals; where hydric wet soil conditions are normally exhibited; and where water depths generally do not exceed two meters. Marshes, shallows, swamps, muskegs, lake bogs, and wet meadows are examples of wetlands.

**Wilderness:** A Congressionally designated area of undeveloped Federal land retaining its primeval character and influence, without permanent improvement or human habitation, that is

**Appendix 2**  
**Glossary of Terms**

protected and managed so as to preserve its natural conditions and that (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least 5,000 acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and, (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

**Wildlife:** All living vertebrate and invertebrate fauna that exist or potentially exist in an area.

**Withdrawal:** An action that restricts the disposition of public lands and that holds them for specific public purposes; also, public lands that have been dedicated to public purposes (for example, recreation sites, office or warehouse sites, etc.).

## APPENDIX 3

### LAND STATUS METHODOLOGY

For purposes of the EPCA project, spatial data themes were created that define various ownership characteristics and categories for lands within the play boundaries. The final data sets were rendered to delineate both surface and subsurface U.S. rights. To accomplish this, ownership cases, extracted from the BLM's LR-2000 Case Recordation and Status Databases, were processed and used to create polygon themes for the project (Figure A3-1).

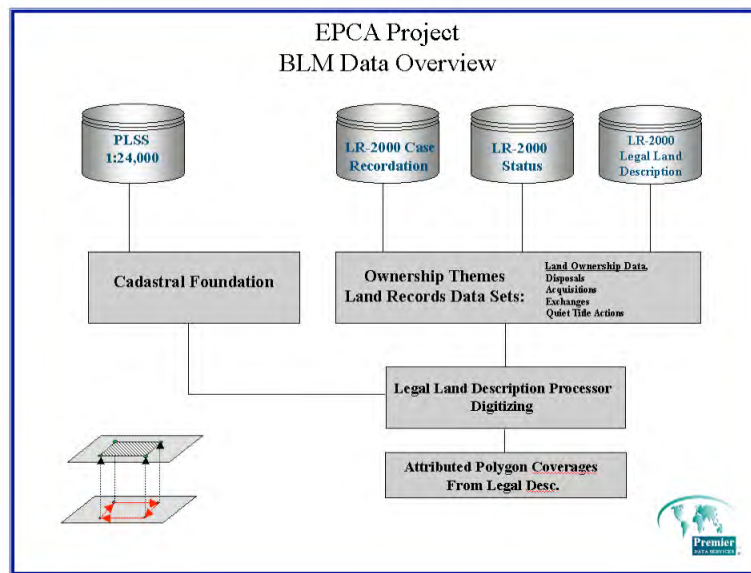


Figure A3-1 Schematic of BLM's Primary Land Records Databases

The primary information that defines U.S. interests in parcels of land are data elements associated with various case categories and land transactions recorded and maintained in the BLM's LR-2000 Case Recordation and Status Databases. The mapped case land records extracted fall within four general categories:

- Land Disposals, including patents, grants, deeds, land sales, and all other transactions that conveyed Federal ownership rights in lands from the Federal Government.
- Acquired Lands, including lands that were re-acquired by the United States under various legal authorities.
- Land Exchanges, including lands exchanged between the Federal Government and other parties.
- Quiet Title Cases, including all records established to cure title and quiet adverse claims.

These four major categories formed the basis to extract records from the BLM's databases. The four queries were processed against both the Status and Case Recordation Systems. Due to formatting differences between the two databases, the resulting polygon attributes contained in

**Appendix 3  
Land Status Methodology**

the GIS shape files varied slightly. Additionally, in some case records extracted from the Case Recordation system, U.S. rights were not readily available but were determined as accurately as possible through interpretation from land records obtained at BLM State and field offices.

The polygon boundaries created through processing reflect the geometry as described by aliquot part description. Lands described by lot or tract surveys were processed against the BLM Legal Land Description (LLD) file to convert the lot references to nominal aliquot descriptions for mapping purposes. Depending on the actual survey type and geometry, the resulting polygon may contain a degree of generalization. Additionally, the BLM record systems do not contain individual records for public domain lands. The location of these lands was determined through various polygon-processing steps described below. The data elements for the attribute fields contained in the shape files produced from each of the LR-2000 databases are shown in Table A3-1.

<b>Status Data Attributes*</b>	<b>Case Recordation Attributes*</b>
Shape	Meridian
Meridian	Township
Township	Range
Range	Section
Section	Surveytype
Survey Type	Aliquot
Aliquot	Serialnumb
Adminagenc	Surveynumb
County	Name
State	Percentint
Serialnumb	Price
Docid	Acres
Patent_num	Dispositio
Case_type	Casetype
Usright1	Commodity
Usright2	Expiredate
Usright3	Expireyear
Usright4	Effectdate
Patentissu (mm/dd/yy)	Royaltyrt
Patentiss1 (year)	Geoname
Acres	Hbp
Patentee	Or
Id	Id
*Note: Data fields were populated if data is entered in the Status or Case Recordation database. If U.S. rights are recorded in the US Rights field, they were included in the Commodity field.	

**Table A3-1 Data Elements, LR-2000 Database**

The data simplification process was completed through numerous steps that combined data associated with each of the four broad record categories referenced above using the following processing steps, shown for an example from the Powder River Basin:

1. A Public Land Survey System (PLSS) grid digitized from USGS 7.5-minute quadrangle maps was used as the cadastral reference framework and contains shapefile coverages that define both townships and sections. For example, lands that fall within the geographic extent of the Powder River Basin were acquired in 1803 under the Louisiana Purchase. All surface and subsurface rights belonged to the United States of America.

After the PLSS base was loaded, a master polygon (Figure A3-2) was created to represent the disposition of the lands at the time of the original purchases and annexations by which the United States acquired land.

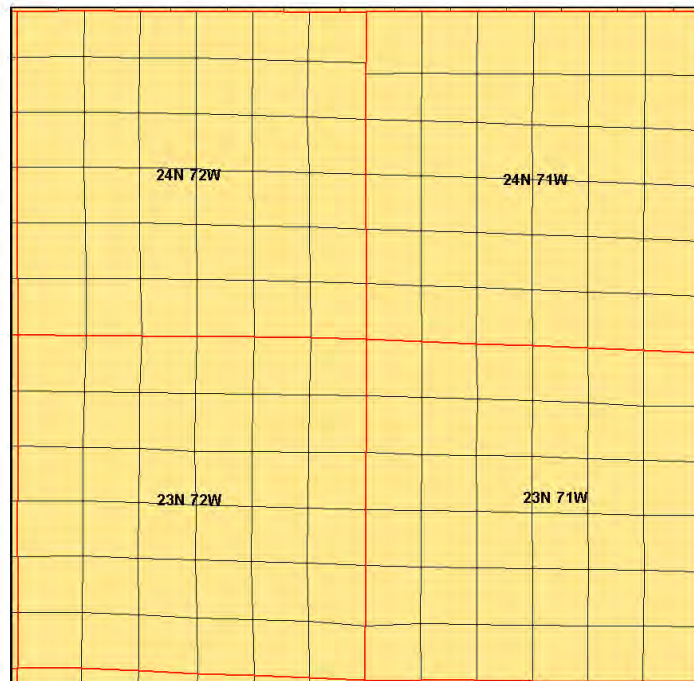


Figure A3-2 Master Polygon

2. The next step involved processing textual legal land descriptions against the section shape file by subdividing according to the survey rules embedded in the CarteView product<sup>1</sup>. Table A3-2 shows a typical input file.

	A	B	C	D	E	F	G	H	I	J	K	L
1	Status	Generic	USRight1	SerialNumber								
2	Meridian	Township	Range	Section	SurveyType	Aliquot	County	State	SerialNumber	DocID	Case Type	USRight1
1348	6 0180N	0920W	28	T	NWNW,NW/SW,SWNW,		7 WY	WYC	0001269	165770	HE ORIGINAL	Coal
1349	6 0180N	0920W	29	T	NENE,NESE,NWNE,NWSE,SENE,SW		7 WY	WYC	0001269	165770	HE ORIGINAL	Coal
1350	6 0180N	0920W	20	T	NESE,NWSE,SESE,SWSE,		7 WY	WYC	0001270	163248	HE ORIGINAL	Coal
1351	6 0180N	0920W	21	T	NWSW,SWSW,		7 WY	WYC	0001270	163248	HE ORIGINAL	Coal
1352	6 0180N	0920W	28	T	NWNW,		7 WY	WYC	0001270	163248	HE ORIGINAL	Coal
1353	6 0180N	0920W	29	T	NENE,NWNE,		7 WY	WYC	0001270	163248	HE ORIGINAL	Coal

Table A3-2 Typical CarteView Input File

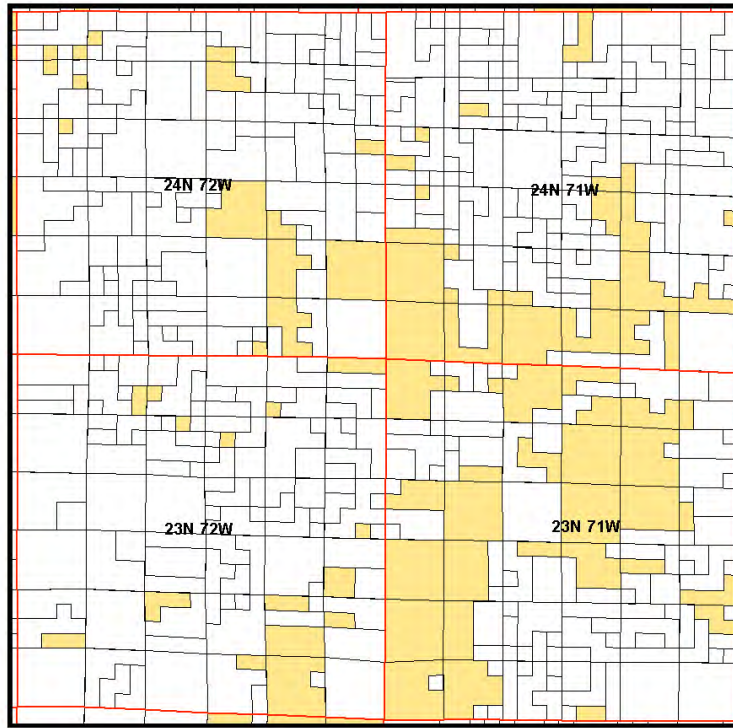
3. After the records from the Status and Case Recordation databases were processed, the resulting polygon themes were re-attributed to allow for a merge between the two data sets. The polygons were then overlaid on the Master Polygon to establish the location of lands where ownership left

<sup>1</sup> A product available through Premier Data Services, Inc.

**Appendix 3**  
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the Federal government by virtue of patent, grant, or other title transfer authority. The resulting coverages are represented in Figure A3-3.

The yellow polygons shown on Figure A3-3 represent lands that remain in the public domain with all surface and subsurface rights managed by the BLM. These public domain lands were then converted to a polygon and attributed to show the current disposition of the U.S rights.



*Figure A3-3 Public Domain Lands*

4. The next step involved constructing a series of queries against the U.S. rights data associated with lands that were disposed of by virtue of various title transfers. This query process involved intensive comparison against the attribute tables in the spatial databases. The results of these processes allowed definition of all lands where subsurface oil and gas rights are owned by the United States.

Figure A3-4 illustrates the distribution of subsurface mineral ownership within a four-township area. The parcels shaded gray represent patented lands where the United States has retained rights to the mineral or oil and gas estate.



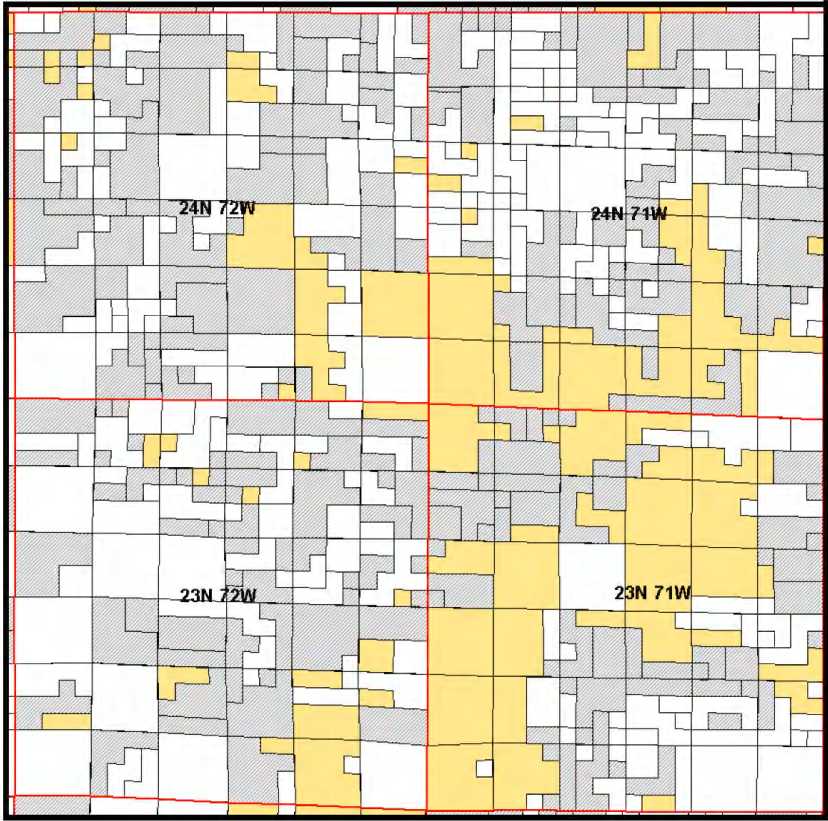


Figure A3-4 Retained U.S. Rights to Mineral or Oil and Gas Estate

5. Next, any surface management agencies or state ownership were defined. These determinations were made by completing a series of queries against the ownership fields in the shape files. An example of the results of this query is shown in Figure A3-5, where the parcels shaded blue represent lands that were granted to the State of Wyoming.

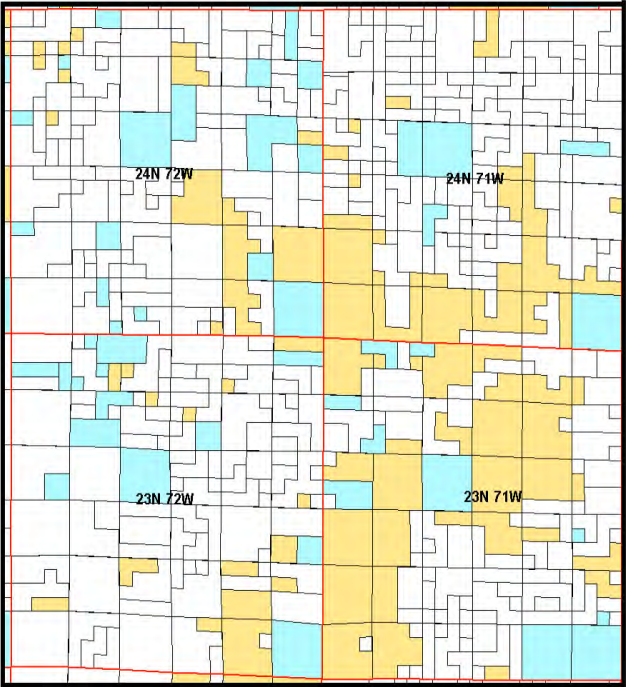
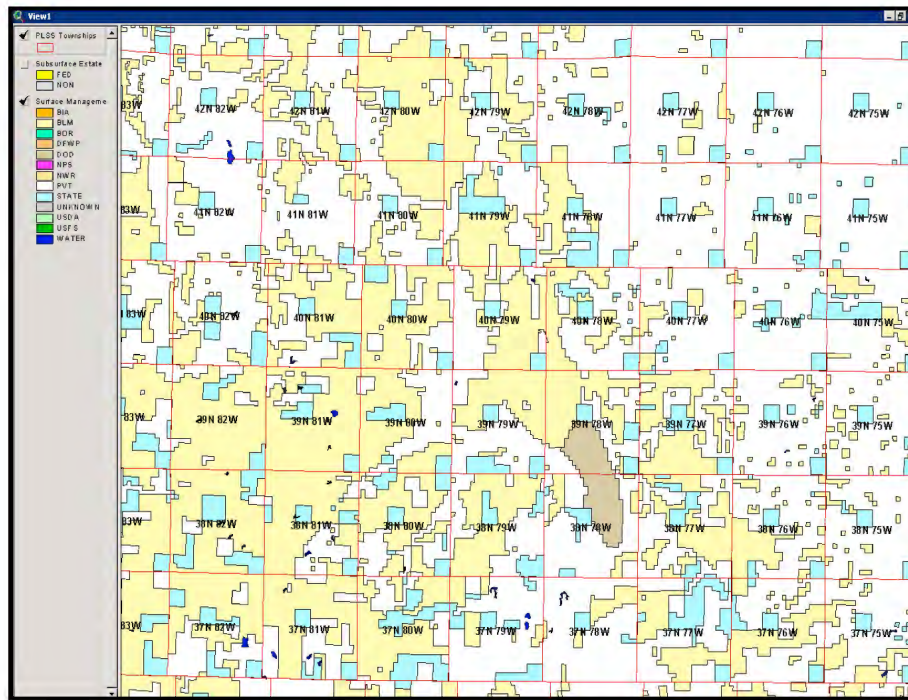


Figure A3-5 Defining Ownership

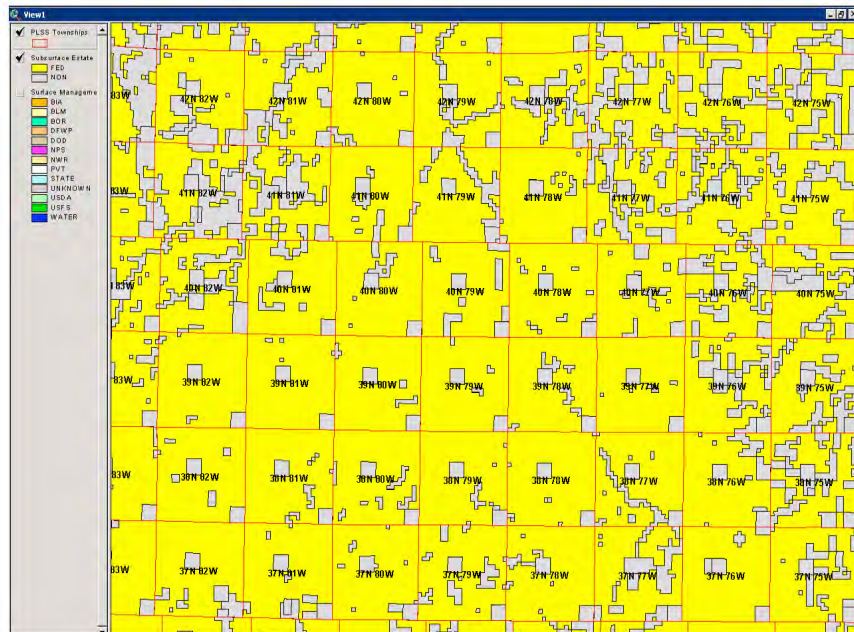
**Appendix 3  
Land Status Methodology**

The final processing step was to dissolve the individual parcels into ownership categories that define the surface and mineral estates. Figure A3-6 shows the surface management agencies and how land ownership is distributed within an area of the Powder River Basin in Wyoming.



*Figure A3-6 Surface Management View*

In contrast to the surface management view, the mineral estate (shown in Figure A3-7) covers the same area and yields a much different picture. The yellow areas represent lands where the Federal government owns oil and gas rights.



*Figure A3-7 Subsurface Oil and Gas Ownership View*

Through the above-described procedure, a detailed assessment of the land status was performed. To facilitate the analytical portion of the project, a simplified version of the status data was created, based on the allocation of the detailed land status to the fundamental Federal surface management agency (i.e., BLM, USDA-FS, etc.)<sup>2</sup>. Maps of the Federal land status for the study areas are presented in Section 2 in Figures 2a through Figure 2e.

The derivation of land status, while complex given the amount of recordation examined, was straightforward in process. However, the following limitations do exist:

- The data sets created from the processes described above reflect the legal land descriptions contained in the BLM databases. Case files were not consulted in the process. This procedure did generate error logs, especially if legal land descriptions had not been properly formatted according to BLM's published LR-2000 standards. The errors created in this process are believed to have minimal impact.
- If a legal description referenced a small survey lot or tract by number, a nominal location was mapped through a PROCESS that referenced the BLM's LLD file. This file is limited to a 40-acre description and carries a minor degree of generalization in complex areas.
- The BLM Case Recordation System is not consistently populated with U.S. rights data. To overcome this, the split estate ownership was established from Case Recordation Data by contacting BLM State and field offices. This process results in a minor degree of generalization.
- Some status information derived from GIS coverages was obtained from multiple sources, resulting in the creation of some sliver polygons during the spatial processing and merging of these data.
- These are an artifact of the differing sources of data and may be present in certain ownership themes; however, their impact on the analyses is minimal.
- The processing of the PLSS data, which are variably sourced, resulted in edge matching across State boundaries. This is believed to have a minimal impact on the analyses.

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<sup>2</sup> The detailed and simplified land ownership databases are presented, by study area, on the CD accompanying this report.

## APPENDIX 4

### LEASE STIPULATION DATA PREPARATION

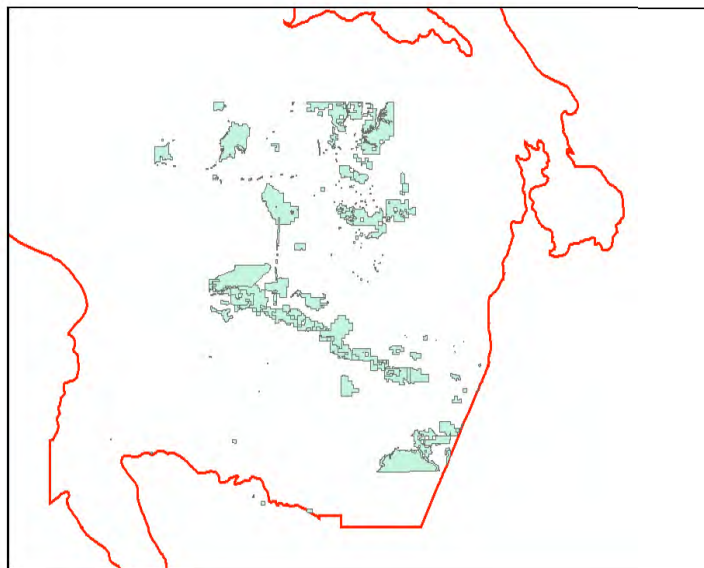
The bulk of the data preparation consisted of data gathering, data digitization, and compilation of the gathered data in a multi-layered GIS format (ESRI shapefiles). Federal Geographic Data Committee Standards (FGDC)-compliant metadata for the resulting GIS layers were also created. GIS coverages from surface management agency land status, stipulations, and the analyses, as well as the associated metadata, are presented on the CD-ROMs accompanying this report.

Where necessary, the shapefiles obtained from the Federal land management agencies were processed using ArcGIS software by matching specific leasing stipulations found in the guidance documents.

The EPCA inventory is limited to those Federal lands within the aggregate resource play boundaries of the five study areas, which are based on geology as defined in the USGS National Assessment of Oil and Gas Resources. The land status and stipulation shapefiles, which correspond to Federal land management agency jurisdiction boundaries, were “clipped” using the GIS to the appropriate study boundary. Some of the shapefiles fell into multiple study areas, so the clipping process was repeated for each area. The attribute tables of the compiled shapefiles were then queried for unique leasing stipulation values. The query results were then saved as separate polygon shapefiles. Each shapefile represents a unique stipulation value.

The following discussion of the specific data preparation steps uses the Paradox/San Juan Basin study area as an example.

1. The first step entails loading the study area (union of resource plays) boundary shapefile and the compiled stipulation shapefile into ArcGIS (Figure A4-1).

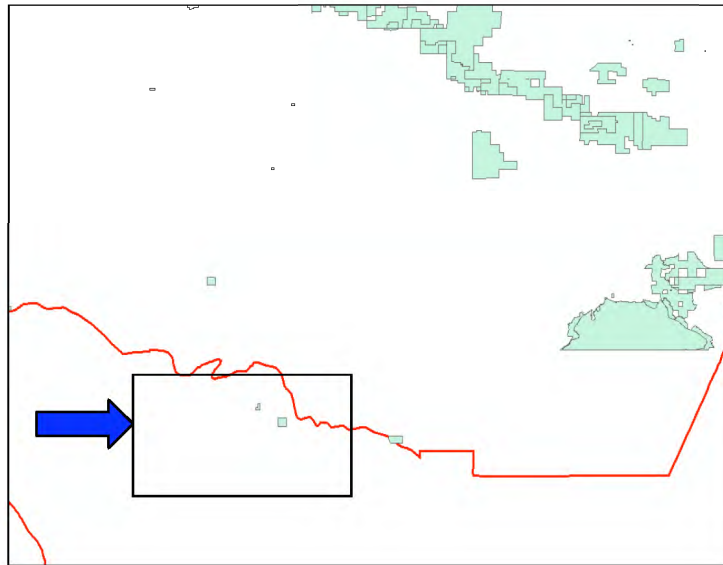


*Figure A4-1 Multi-Stipulation Polygon and Study Area Boundary*

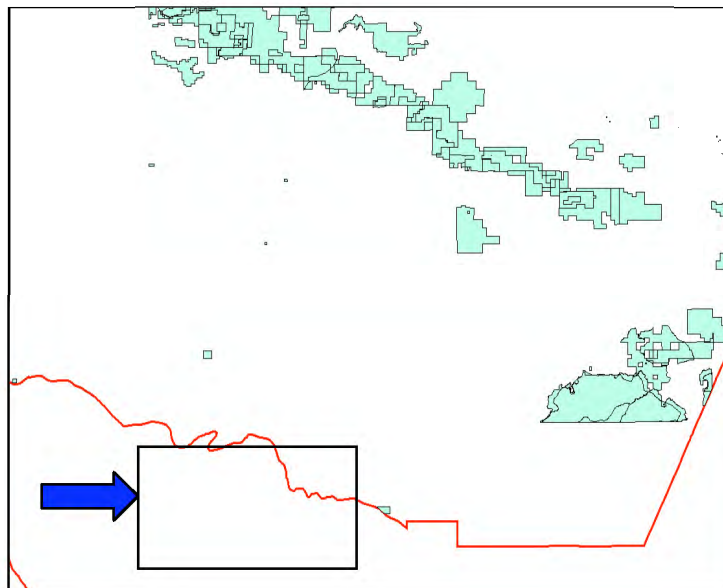
2. The next step in this process is to “clip” or cut the compiled stipulation shapefile to the study boundary. Figure A4-2 shows how this GIS coverage partially falls outside

**Appendix 4**  
**Lease Stipulation Data Preparation**

of the study boundary. Figure A4-3 shows the GIS coverage after it has been clipped.



*Figure A4-2 Example of Shapefile Extending Over Study Area Boundary*



*Figure A4-3 Example of Shapefile after Clipping to Study Area Boundary*

3. The compiled stipulation shapefile is then queried for unique stipulation attributes values as shown in the ArcGIS Query Builder (Figure A4-4). For this example, all polygons covered by the leasing stipulation “Critical Big Game Habitat” were selected. The highlighted rows in the attribute table (Figure A4-5) show which records are selected. The polygons associated with the selected attributes are highlighted in Figure A4-6 (purple outline).

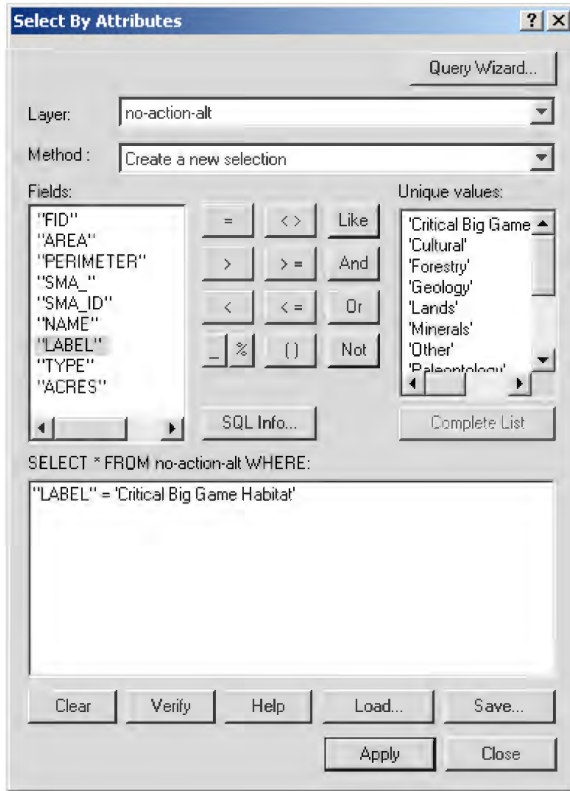
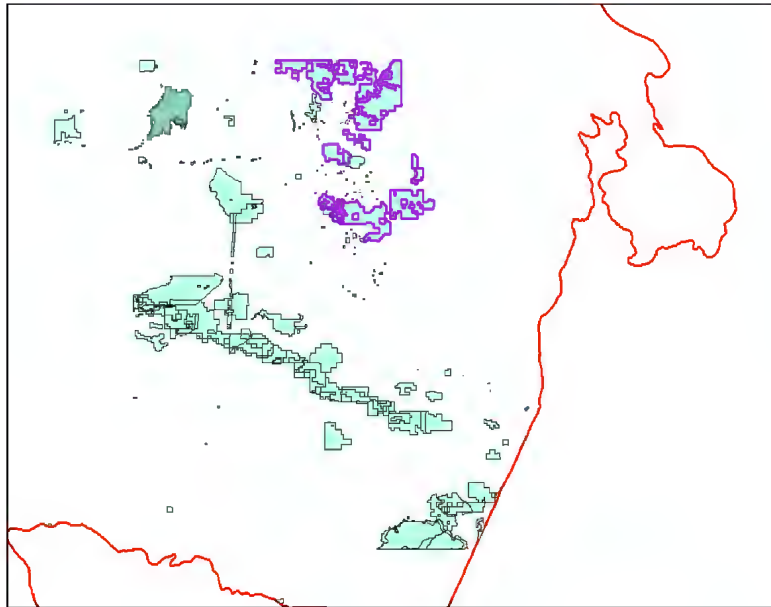


Figure A4-4 Query in ArcGIS for all “Critical Big Game Habitat”

FID	Shape	AREA	PERIMETER	SMA_	SMA_ID	NAME	LABEL
15	Polygon	0	0.00431	0	0	Historic Homesteads	Cultural
16	Polygon	0	0.00502	0	0	Historic Homesteads	Cultural
17	Polygon	0	0.00433	0	0	Historic Homesteads	Cultural
18	Polygon	0	0.00402	0	0	Historic Homesteads	Cultural
19	Polygon	0	0.0043	0	0	Historic Homesteads	Cultural
20	Polygon	0	0.00454	0	0	Historic Homesteads	Cultural
21	Polygon	0	0.0043	0	0	Historic Homesteads	Cultural
22	Polygon	0.01017	0.84986	0	0	Critical Big Game	Critical Big Game Habitat
23	Polygon	0.00719	1.99197	0	0	Critical Big Game	Critical Big Game Habitat
24	Polygon	0.01717	1.49917	0	0	Critical Big Game	Critical Big Game Habitat
25	Polygon	0.0001	0.95789	0	0	Critical Big Game	Critical Big Game Habitat
26	Polygon	0.00028	0.99199	0	0	Critical Big Game	Critical Big Game Habitat
27	Polygon	0.00033	0.98994	0	0	Critical Big Game	Critical Big Game Habitat
28	Polygon	0.00195	0.93017	0	0	Critical Big Game	Critical Big Game Habitat
29	Polygon	0.00358	0.95978	0	0	Critical Big Game	Critical Big Game Habitat
30	Polygon	0.00177	0.2752	0	0	Critical Big Game	Critical Big Game Habitat
31	Polygon	0.02178	2.50406	0	0	Critical Big Game	Critical Big Game Habitat
32	Polygon	0.00003	0.0235	0	0	Ashebahe Station	Restoration
33	Polygon	0.00004	0.02989	0	0	Bald Eagle	T&E Species
34	Polygon	0.00002	0.02182	0	0	Bald Eagle	T&E Species

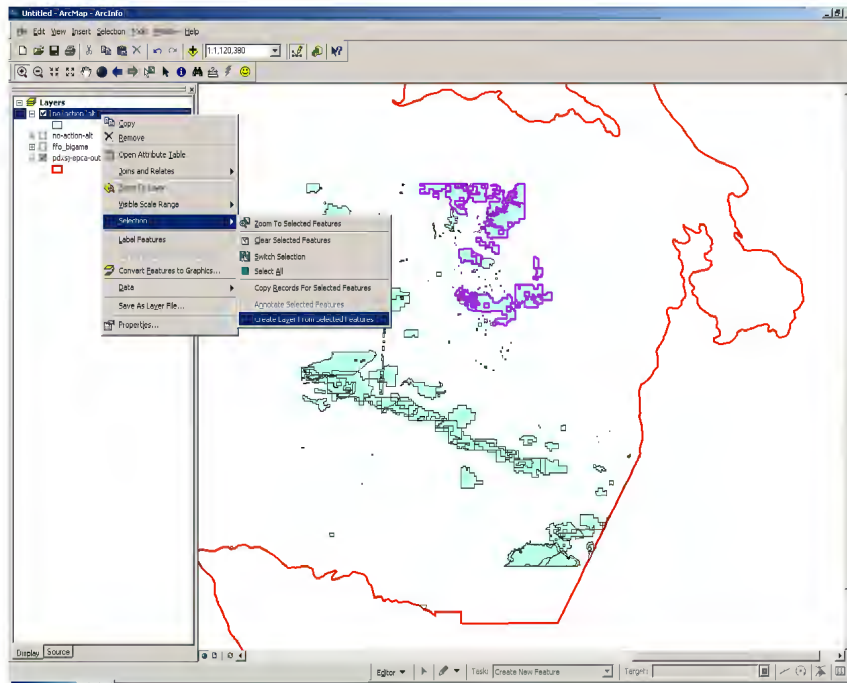
Figure A4-5 Attribute Table Showing all “Critical Big Game Habitat” Polygons

**Appendix 4**  
**Lease Stipulation Data Preparation**

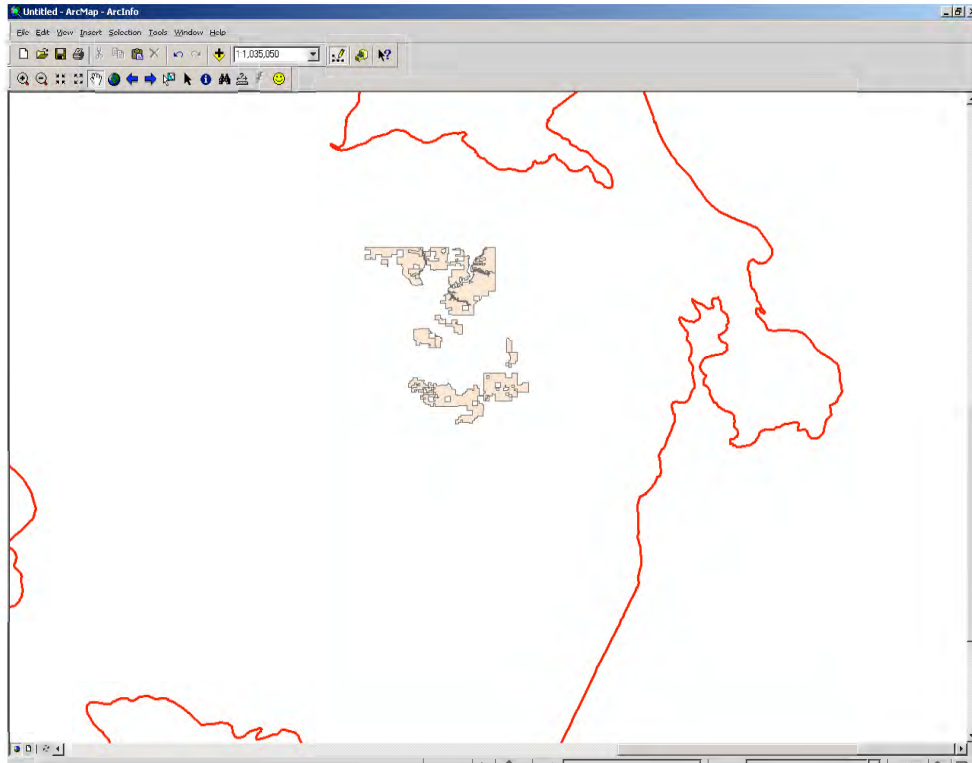


**Figure A4-6** Polygons Selected by Query as “Critical Big Game Habitat”

- Using the ArcGIS function “Create layer from Selected Features,” a new shapefile is created that contains only polygons labeled with the attribute “Critical Big Game Habitat” (Figure A4-7). Figure A4-8 shows the new shapefile that is created.



**Figure A4-7** Creating New Shapefile from Selected Attributes



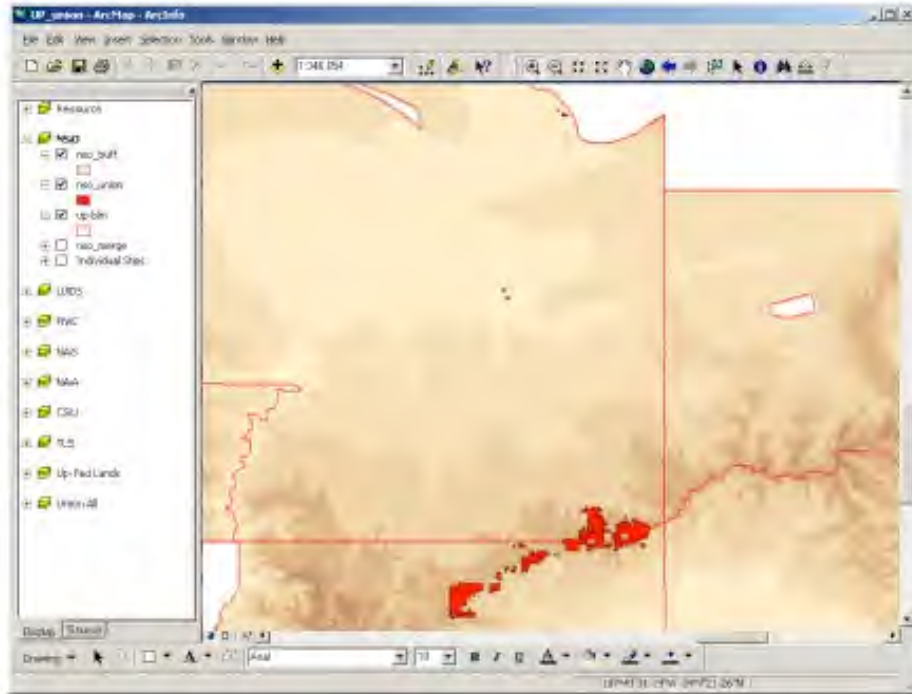
**Figure A4-8** *New Shape File Representing Land with Leasing Stipulation for “Critical Big Game Habitat”*

For certain stipulations, such as steep slopes, for which GIS data were not available from the BLM or Forest Service offices, shapefiles were created from available data in conformance with stipulation requirements. For example, a typical steep slope stipulation impacts leasing in areas where slopes exceed 40 percent. Polygon themes were created from slope data derived from USGS 1:24,000 Digital Elevation Models (DEMs). These raster data sets contain elevation information on a 30-meter grid spacing.

The USGS DEMs were first clipped to the BLM or Forest Service jurisdictional area. In situations where more than one agency had the same stipulations, the digital elevation model (DEM) was clipped to the agencies’ combined jurisdictional area. A raster coverage was then created containing slope percentage data as calculated by ArcGIS. This coverage was then queried to isolate the areas covered by the stipulation (i.e., all areas equal to or steeper than 40 percent). The selected raster data was then converted to a vector polygon coverage, and the coverage was coded and attributed as described above. Figure A4-9 shows the creation of steep slope coverages. The 30-meter USGS DEM for this portion of the Uinta Basin is shown in shades of beige. The red theme at the bottom center of the figure represents the polygon shapefile showing areas with a greater than 40 percent slope.



**Appendix 4**  
**Lease Stipulation Data Preparation**



*Figure A4-9 Creation of Steep Slope Restriction Coverages*

Following the above procedures, the GIS shapefiles of the stipulations were coded with their respective descriptions from the various land use plans. These stipulations are listed in Appendix 9.

## APPENDIX 5

# U.S. GEOLOGICAL SURVEY METHODOLOGY FOR THE ASSESSMENT OF UNDISCOVERED OIL AND GAS RESOURCES

By U.S. Geological Survey National Assessment Review Team

## Introduction

The USGS conducts assessments of technically recoverable undiscovered oil and gas resources of the onshore and State waters of the United States. The last comprehensive USGS oil and gas assessment was completed in 1995, and comprises the onshore and State waters portion of 71 geologic provinces (Gautier and others, 1996). In 1999, the USGS initiated a new, six-year plan to produce incremental assessments of the 25 most significant U.S. oil and gas provinces.

To meet the requirements of Section 604 of the EPCA, the USGS reorganized the priority list for the new re-assessments. For this EPCA report, new assessments were conducted for the Uinta-Piceance Basin, San Juan Basin, Montana Thrust Belt, Powder River Basin, and Greater Green River Basin. The 1995 assessment results were used for the Paradox Basin. The general assessment methodology has not changed from the 1995 assessments; however, some refinements have been made to accommodate increased geologic understanding of the occurrence of resources and more sophisticated means of capturing the range of uncertainty inherent in these variables. For example, the assessment model for continuous resources in the 1995 assessment assumed a homogenous distribution of oil and gas resources in a play. For the new assessments, that model has been replaced with an analysis of geologically controlled sweet spots of production, which demonstrate the geologic heterogeneity common to continuous oil or gas accumulations. The recognition of production sweet spots is a major advancement in the assessment of continuous resources.

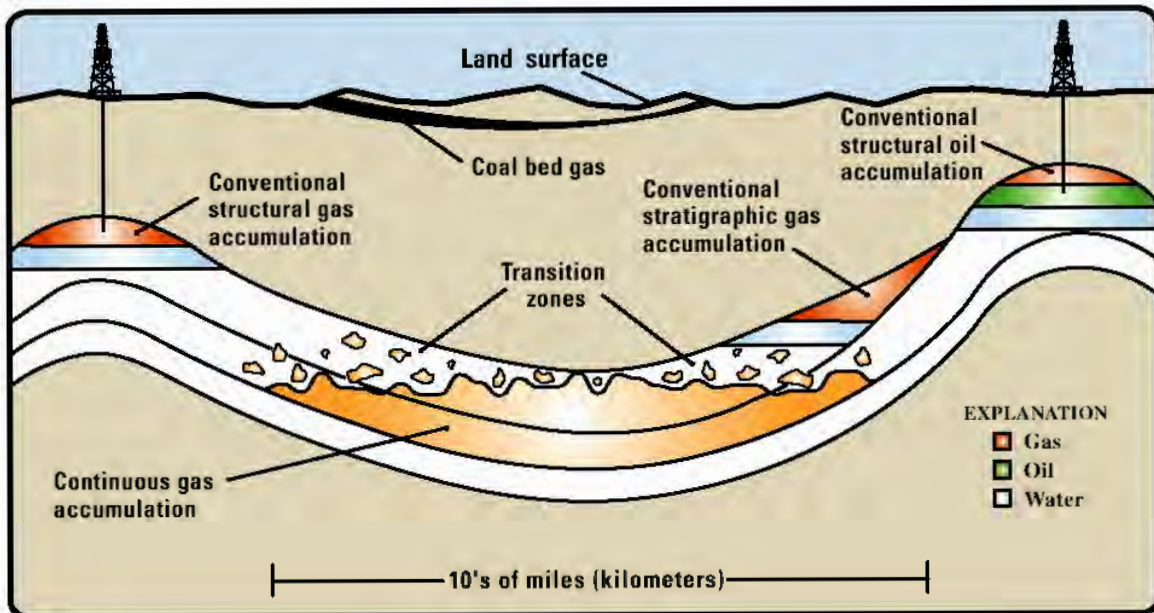
This report includes the assessment of undiscovered conventional and continuous (unconventional) oil and gas resources of these resources to surface land ownership categories in the five priority EPCA provinces listed above: Uinta-Piceance Basin, Paradox-San Juan Basins, Montana Thrust Belt, Powder River Basin, and Southwest Wyoming (Greater Green River Basin).

## Terminology

Terminology used in this report reflects standard definitions and usage of the oil and natural gas industry and the petroleum resource assessment community. Several terms have been developed by the USGS for oil and gas assessment purposes (see Glossary in Appendix 2). The 1995 USGS assessment focused on the definition and assessment of geologic *plays*. In the latest USGS assessment, the focus is on understanding total petroleum systems and defining *assessment units* within total petroleum systems. The total petroleum system approach is designed to focus the geologic studies on the hydrocarbon source rocks, processes that create hydrocarbons, migration pathways, reservoirs, and trapping mechanisms. For discussion purposes in this report, the term *play* will be used throughout to represent both *assessment units* and *plays*.

**Appendix 5**  
**USGS Geological Survey Methodology**

The USGS assesses two main categories of hydrocarbon occurrence: conventional and continuous (Figure A5). Conventional oil and gas accumulations are defined as discrete fields with well-defined hydrocarbon-water contacts, where the hydrocarbons are buoyant on a column of water. Conventional accumulations commonly have relatively high matrix permeabilities, have obvious seals and traps, and have high recovery factors. In contrast, continuous accumulations (also called unconventional accumulations) commonly are regional in extent, have diffuse boundaries, and are not buoyant on a column of water. Continuous accumulations have very low matrix permeabilities, do not have obvious seals and traps, are in close proximity to source rocks, are abnormally pressured, and have low recovery factors. The USGS assessment focused on understanding the geology and occurrence of continuous hydrocarbon accumulations, as the resource potential of these accumulations may be greater than that for conventional accumulations in the U.S. Included in the category of continuous accumulations are hydrocarbons that occur in tight reservoirs, shale reservoirs, unconventional reservoirs, basin-centered reservoirs, fractured reservoirs, coal beds, hydrates, and oil shales.



*Figure A5 Conventional vs. Continuous Accumulations*

**Overview of the Oil and Gas Assessment Procedure**

The assessment process is based on the characterization of the petroleum geology of each province. The geologists define the geologic elements of the total petroleum systems, and, in conjunction with an analysis of historic oil and gas production and exploration/discovery data, define the oil and gas plays within the provinces. The geologists then develop probability distributions for sizes and numbers of undiscovered conventional accumulations, or numbers of cells and EUR's for continuous accumulations, using all available geologic information and historic oil and gas data. These distributions are then used to generate probability distributions for undiscovered oil and gas resources.

## **Role of Geologic Information in the Assessment**

The strength of the USGS oil and gas resource assessments is the province geologists' understanding of the petroleum geology of the provinces being assessed. These fundamental geologic studies allow new concepts and hypothetical plays to be incorporated into the assessment of undiscovered resources. A purely statistical approach to an assessment such as discovery process modeling that uses only historical data will overlook any new geologic concepts, models, or hypothetical plays.

The team of geologists develops an understanding of the province petroleum geology using published, proprietary, and original research and data. Studying the total petroleum systems within a province includes: (1) identification and mapping the extent of the major hydrocarbon source rocks; (2) understanding the thermal evolution of each source rock, the extent of mature source rock, and the timing of hydrocarbon generation, expulsion, and migration; (3) estimating migration pathways and all forms of hydrocarbon trapping; (4) modeling the timing of structural development and the timing of trap formation relative to hydrocarbon migration; (5) determining the sequence stratigraphic evolution of reservoirs, and the presence of conventional or continuous reservoirs, or both; and (6) modeling the burial history of the basin and the effect burial and uplift has had on the preservation of conventional and continuous hydrocarbons.

Once the total petroleum systems of the province are known in satisfactory detail, the team of geologists defines oil and gas plays, which represent a synthesis of all geologic information, including production and exploration data. The key component of this analysis is a geologic model for the assessment of each play. The geologic model encompasses all elements of the total petroleum system, and is commonly summarized by a total petroleum system events chart.

## **Sources of Oil and Gas Data**

Data for domestic oil and gas fields, reservoirs, and wells are derived from commercial databases purchased annually by the USGS. With more than 2.5 million domestic oil and gas wells and 40,000 oil and gas fields, the USGS has opted to purchase the data from commercial vendors rather than attempt to generate a comprehensive database. The oil and gas wells and production databases are now purchased from the IHS Energy Group (2000 a, b). Previous assessments used the predecessors to IHS: PetroROM Production Data (Petroleum Information/Dwights LLC, 1999a) and the Well History Control System (Petroleum Information/Dwights LLC, 1999b). The USGS also relies on the NRG Associates, Inc. Significant Oil and Gas Fields of the United States (NRG Associates, 2001). Data from these commercial databases are subject to proprietary constraints, and the USGS cannot publish, share, or serve any data from these databases. However, derivative representations in the form of graphs and summary statistics can be prepared and presented for each play. The USGS, however, cannot verify the accuracy, completeness, or currency of data reported in commercial databases.

The IHS production database provides oil and gas production data for wells, leases, or producing units (collectively called "entities" in these databases). The IHS oil and gas wells database provides individual well data (including data for dry holes) that include well identification, locations, and information on penetrated and producing formations. Oil and gas field databases provide location, geologic characterization, and oil and gas production data for domestic oil and gas fields and reservoirs.

**Appendix 5**  
**USGS Geological Survey Methodology**

Additional oil and gas data are obtained, where available, from operators, state agencies, and other government sources, such as the U.S. Department of Energy's Energy Information Administration proprietary files, publications from the former Bureau of Mines, and other sources.

**Assigning Accumulations and Wells to Plays**

Digital maps of plays are created using a GIS. The oil and gas play boundaries are available at <http://energy.cr.usgs.gov/oilgas/noga>. Digital play maps are used to assign oil and gas wells and accumulations to their respective plays, and these assignments are entered into the databases. Oil and gas accumulations are assigned to only one play. Wells, however, can be assigned to more than one play if they penetrate vertically stacked plays. Oil and gas accumulations and well assignments are reviewed to ensure proper assignments, identify inconsistent data, and examine the need for minor revisions of play boundaries.

Historic production and exploration/discovery data are collected for each play using oil and gas accumulations or well assignments. Types of data retrieved include: (1) known volumes (sum of cumulative production and remaining reserves) of recoverable oil, gas, and natural gas liquids (NGL) of accumulations; (2) discovery dates of accumulations (the year the first reservoir in the accumulation was discovered); (3) monthly production and cumulative production of wells; (4) initial classification and final classification of wells (for example, new-field wildcat, development, producing, abandoned, and so on) of wells; and (5) completion dates of wells.

**Oil and Gas Production Data**

The historic oil and gas production data are compiled for each play so that the data from discovered accumulations can be used as a guide for potential undiscovered accumulations. For conventional plays, these data include (1) field name, (2) field discovery year or date of completion of the discovery well, (3) known volumes of oil, gas (non-associated and associated-dissolved), and NGL, and (4) depth to the top of each reservoir. All of the production data for conventional assessment units are arranged in terms of oil accumulations and gas accumulations and sorted by size and discovery date for statistical calculations and plotting. A list of new-field wildcat wells and their completion dates is compiled and organized into the number of wells drilled per year for conventional plays. (A new-field wildcat well is an exploratory well drilled at least two miles from a producing field to test a separate trap.) Once organized, the number of wells drilled in a given year is used as a measure of exploration effort. These data are then combined with the production data using the discovery dates of the accumulations and the completion dates of the wells.

Oil and gas production data compiled for each producing well in continuous-type plays include past monthly production of liquids (oil and NGL) and gas (non-associated and associated-dissolved), from which EUR's are estimated using well decline-curve analysis, the date of first production, and depth to the topmost perforation. A list of all wells and completion dates are compiled and organized. However, the number of wells drilled in a given year is not combined with production data, but analyzed separately.

Co-product ratios (GOR; NGL to gas ratio; and LGR) are calculated and major commodities (oil or gas) are identified for each conventional accumulation. Co-product ratios are based on accumulation-level oil, gas, and NGL volumes. Oil and gas accumulations are treated separately;

an oil accumulation is defined as one having a GOR less than 20,000 cubic feet/barrel whereas a gas accumulation has a GOR equal to or greater than 20,000 cubic feet/barrel.

Supplemental data from individual reservoirs within the accumulations include thickness (net and gross), average porosity, average permeability, temperature, pressure, fluid properties (for example, sulfur content of oil, API gravity of oil, non-hydrocarbon gas contents), trap type, drive type, and well spacing. These data are combined with the data from the commercial databases to help refine the geologic interpretations and assessment process.

### **Graphs and Statistics for Conventional Plays**

Two sets of graphs and statistics are generated for conventional plays – one set using known accumulation sizes as of the effective date of the assessment and one set using accumulation sizes that are corrected for anticipated reserve growth (grown accumulation size) within the forecast span of the assessment.

The set of graphs and statistics generated for conventional plays includes sizes and number of accumulations with respect to discovery date and exploration effort, exploration effort through time, size distributions of accumulations, reservoir depth versus discovery date and exploration effort, co-product ratios versus reservoir depth, and a histogram of the API gravity. Accumulations containing less than a specified minimum volume of oil or gas (that is, the smallest accumulation size that is considered in the assessment process) are not included in these graphs or statistics. Counts of new-field wildcat wells are used as a measure of exploration effort for finding new accumulations.

### **Assessment Input for Conventional Plays**

Critical input data for conventional plays are probability distributions for sizes and numbers of undiscovered oil and gas accumulations and co-product ratios. The geologists develop these distributions by synthesizing all petroleum systems information and historic oil and gas data. For hypothetical plays, the geologist may utilize an analog data set for sizes and numbers of discovered fields as a guide to the distributions of sizes and numbers of undiscovered fields in the play or assessment unit being assessed. Geologists provide information on oil and gas quality, range of drilling depths, and range of water depths for future economic analyses.

### **Graphs and Statistics for Continuous-Type Plays**

A set of graphs and statistics comparable to that for conventional plays is generated for continuous-type plays, but the EUR per cell and numbers of tested cells are used rather than accumulation sizes and number of discovered accumulations. Tested cells of less than the specified minimum EUR per cell are not included in these graphs or statistics, and reserve-growth adjustments for cells are not incorporated.

The set of graphs and statistics generated for continuous-type plays includes number of wells drilled through time (all wells as opposed to new-field wildcat wells), probability distributions of EUR, EUR versus production-start year and number of all wells drilled, cumulative EUR versus production-start year and number of wells drilled, cumulative EUR versus depth of the topmost perforation, and GOR versus ranked EUR. All of this information is provided to the assessor as a guide to generating distributions for the assessment of undiscovered resources.

## **Assessment Input for Continuous Plays**

Critical input data for the continuous play assessment model include numbers of cells that have potential to be added to reserves, the EUR distribution for these cells, and the co-product ratios. For hypothetical plays, the geologist may utilize an analog data set for distribution of cell size and for the EUR distribution as guides to the distributions of cell sizes and EUR's of undiscovered area in the play being assessed. The geologist provides information on oil and gas quality, range of drilling depths, and range of water depths for future economic analyses.

## **USGS Assessment Review**

The province geologist must present the geology of the play and the input data to a team of USGS personnel for a formal review. The team consists of geologists, geophysicists, and assessment methodologists with broad expertise in petroleum geology, which together promotes a consistent geological and methodological approach to the assessment. Every aspect of the geology and input data are reviewed, and any changes are incorporated into the input data at this time. Once the input data have been finalized, the input data are ready for quantitative analysis.

## **Calculation of Undiscovered Conventional and Continuous Resources**

The final reviewed assessment input forms are the basis of the quantitative calculations of undiscovered oil and gas resources. For conventional plays, the probability distributions for sizes and numbers of undiscovered accumulations and the co-product ratios provided by the assessor are entered into a Monte Carlo simulator and run for a specified number of iterations to provide distributions of undiscovered oil, gas, and NGL resources. In the 1995 assessment, a Truncated Shifted Pareto Distribution (Gautier and Dolton, 1996) was used for the shape of the curve for the distribution of sizes of oil and gas fields. For the present assessment, a Truncated Shifted Lognormal Distribution is used for this purpose (Charpentier and Klett, 2000).

For continuous plays, the distributions for assessment-unit area, untested percentage of assessment unit area, potential percentage of untested area, and area per cell of untested cells are combined analytically to determine the distribution for number of potential untested cells. The distribution for numbers of potential untested cells EUR per cell, and the co-product ratios are combined using an Analytic Probability Method (Crovelli, 2000) to directly calculate the probability distribution of undiscovered oil and gas resources.

## **Assessment Results**

The results and maps of the resource assessment of more than 90 oil and gas plays for the Uinta-Piceance Basin, Paradox-San Juan Basins, Greater Green River Basin, Powder River Basin, and the Montana Thrust Belt provinces can be downloaded from <http://energy.cr.usgs.gov/oilgas/noga>.

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San Juan Basin Assessment:

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Crovelli, R.A., 2000, Analytic resource assessment method for continuous (unconventional) oil and gas accumulations - the "ACCESS" method: U.S. Geological Survey Open-File Report 00-044, 34 p.

Gautier, D.L., and Dolton, G.L., 1996, Methodology for assessment of undiscovered conventional accumulations, *in* 1995 National assessment of United States oil and gas resources--Results, methodology, and supporting data: U.S. Geological Survey Digital Data Series DDS-30, Release 2 (1 CD-ROM).

Gautier, D.L., Dolton, G.L., Takahashi, K.I., and Varnes, K.L., eds., 1996, 1995 National assessment of United States oil and gas resources--Results, methodology, and supporting data: U.S. Geological Survey Digital Data Series DDS-30, Release 2 (1 CD-ROM).

IHS Energy Group, 2000a [includes data current as of December, 1999], PI/Dwights Plus US Production Data: Englewood, Colo., IHS Energy Group; database available from IHS Energy Group, 15 Inverness Way East, D205, Englewood, Colorado 80112, U.S.A.

IHS Energy Group, 2000b [includes data current as of December, 1999], PI/Dwights Plus US Well Data: Englewood, Colo., IHS Energy Group; database available from IHS Energy Group, 15 Inverness Way East, D205, Englewood, Colorado 80112, U.S.A.



**Appendix 5**  
**USGS Geological Survey Methodology**

NRG Associates, Inc., 1993, 1994, 1999, 2000, and 2001 [includes data current as of December 31, 1992, December 31, 1993, December 31, 1998, December 31, 1999, and December 31, 2000, respectively], The Significant Oil and Gas Fields of the United States: Colorado Springs, Colo., NRG Associates, Inc.; database available from NRG Associates, Inc., P.O. Box 1655, Colorado Springs, Colorado 80901, U.S.A.

Petroleum Information/Dwights LLC, 1999a [includes data current as of December, 1998], PetroROM Production Data: Englewood, Colo., Petroleum Information/Dwights LLC; database now available from IHS Energy Group, 15 Inverness Way East, D205, Englewood, Colorado 80112, U.S.A.

Petroleum Information/Dwights LLC, 1999b [includes data current as of December, 1998], Well History Control System: Englewood, Colo., Petroleum Information/Dwights LLC; database now available from IHS Energy Group, 15 Inverness Way East, D205, Englewood, Colorado 80112, U.S.A.

## APPENDIX 6

# ENERGY INFORMATION ADMINISTRATION PROVED RESERVES ESTIMATION AND FIELD BOUNDARY CONSTRUCTION

### Summary

The EPCA task of the Reserves and Production Division, Office of Oil and Gas, Energy Information Administration, was to ascertain the relationship of proved reserves of crude oil, natural gas and natural gas liquids to Federal lands located in selected geologic basins of the Rocky Mountain region. This involved attribution of reported and imputed proved reserves to individual fields, development of field boundaries, and relation of the field boundaries and the associated proved reserves estimates to Federal lands. The primary results are presented in multi-layered GIS format accompanied by metadata compliant with the Federal Geographic Data Committee Metadata Standard.

Five sources of data were assembled and conditioned for the project:

- 1) The 2001 Form EIA-23 Reserves Survey, which was the source for the bulk of proved reserves
- 2) The commercially vended IHS Energy Group (IHS) Production Data set, which provided field and reservoir names and 2001 production
- 3) The IHS Well History Data set, which provided the bulk of the individual well locations
- 4) Relevant State web sites that were consulted to augment the IHS data as respects field and reservoir names, locations, and status
- 5) Federal lands boundary data, provided by the Department of the Interior

Several steps were involved in the data assembly and conditioning phase:

- 1) Identifying study area wells, reservoirs, and fields
- 2) Editing and renaming of reservoir and field names to make them consistent from source to source
- 3) Identification and standardization of well types
- 4) Exploration of alternative methods for determining appropriate well buffer sizes
- 5) Testing of alternative methods for the rendering of field boundary polygons
- 6) Merging of the IHS Production data, the IHS Well History data and the Form EIA-23 survey data

To compare the fields and their reserves to Federal lands it was necessary to construct a boundary for each field. Placement of appropriate buffers around individual wells, followed by their union, was relied on to create reasonable field boundaries. Buffer size was based on well spacing as determined from measurements of the latitude and longitude of an individual well's spud point relative to those of neighboring wells within the same reservoir. Rules were developed to determine on the basis of these measurements which standard well spacing should be used for each reservoir, as well as to handle exceptional cases. Field boundary polygons were generated using ESRI's ArcGIS Version 8.2 software using the standard well spacing-based buffers assigned to each reservoir. A Visual Basic application was written to automate this process. The software performed these main steps:

**Appendix 6  
EIA Proved Reserves Estimation  
and Field Boundary Construction**

- 1) Selection of all wells and buffer distances with a specific field
- 2) Creation of a buffer around each well in the field using the assigned "buffer distance"
- 3) Unioning of the buffers in each field to dissolve inner boundaries of overlapping buffers
- 4) Outputting of a boundary polygon, sometimes more than one polygon, for each individual field
- 5) Areal comparison the field boundary polygons to the Federal lands polygons resulting in output of the Federal lands fraction of the total field area

Proved reserves estimates submitted on the 2001 Form EIA-23 survey were used in the proved reserves estimation process as-reported. For those fields in which only some of the operators reported on Form EIA-23, the weighted average reserves-to-production ratio of those which reported was multiplied by the production of non-reporting operators to impute the latter's proved reserves. To impute proved reserves for those fields in which no operator had reported on Form EIA-23, regression equations were developed from the reported observations that were used to estimate proved reserves for these typically small fields. The portion of proved reserves associated with Federal lands within the field was then computed using the Federal lands fraction and each field was assigned to a proved reserves size class sufficiently narrow to be useful for EPCA purposes while at the same time broad enough to ensure confidentiality of each Form EIA-23 respondent's proprietary proved reserves estimates.

For the entire study area, proved Federal lands liquid reserves (crude oil plus condensate) were estimated to be 53.6 percent of total proved reserves; individual basins ranged from 0.0 to 68.9 percent. Similarly, for the entire study area, proved Federal lands gas reserves were estimated to be 60.1 percent of total proved reserves; individual basins ranged from 0.0 to 79.4 percent. Also for the entire study area, Federal lands proved BOE reserves were estimated to be 59.5 percent of total proved reserves; individual basins ranged from 0.0 to 78.6 percent.

**The Study Areas**

The basins targeted in this initial EPCA study and the States and counties pertinent to them are listed in Table A6-1. Final Federal lands boundaries for the study areas were received from the USGS on July 17, 2002. All wells in the listed States and counties for which location information (in the form of latitude and longitude coordinates) was available were plotted along with the study area boundaries. Wells not located within the study area boundaries were then discarded.

*Table A6-1: Targeted Basins and Their State and County Affiliations*

**Montana Overthrust Belt**

<u>State</u>	<u>Counties</u>
Montana	Beaverhead, Broadwater, Cascade, Deer Lodge, Flathead, Gallatin, Glacier, Granite, Jefferson, Lake, Lewis & Clark, Lincoln, Madison, Meagher, Mineral, Missoula, Park, Pondera, Powell, Ravalli, Sanders, Silver Bow, Teton

**Paradox-San Juan Basin**

<u>State</u>	<u>Counties</u>
Colorado	Archuleta, Dolores, La Plata, Mesa (part), Montezuma, Montrose (part), San Miguel, San Juan
New Mexico	Cibola, McKinley, Rio Arriba, San Juan, Sandoval
Utah	Emery (part), Garfield, Grand (part), Iron, Kane, Piute, San Juan, Sevier (part), Washington, Wayne

**Powder River Basin**

<u>State</u>	<u>Counties</u>
Montana	Bighorn, Carter, Custer, Powder River, Rosebud, Treasure
Nebraska	Sioux
South Dakota	Custer, Fall River
Wyoming	Campbell, Converse, Crook, Johnson, Natrona, Niobrara, Sheridan, Weston

**Greater Green River (SW Wyoming) Basin**

<u>State</u>	<u>Counties</u>
Colorado	Eagle, Garfield (part), Moffat (part), Rio Blanco (part), Routt
Utah	Daggett, Summit
Wyoming	Carbon, Fremont, Lincoln, Sublette, Sweetwater, Teton, Uinta

**Uinta-Piceance Basin**

<u>State</u>	<u>Counties</u>
Colorado	Delta, Garfield (part), Gunnison, Mesa (part), Moffat (part), Montrose (part), Ouray, Pitkin, Rio Blanco (part)
Utah	Carbon, Duchesne, Emery (part), Grand (part), Juab, Sanpete, Sevier (part), Uintah, Utah, Wasatch

Note: “(part)” indicates that more than one basin applies to a county

**The Data Sources**

Five principal sources of data were used for this study:

- a. The **2001 Form EIA-23 Survey** files which contain field production and proved reserves estimates as reported by the largest operators.
- b. **IHS Production CD’s** which contain crude oil, AD gas, NA and condensate production at the well (for gas) or lease (for oil) level.
- c. **IHS Well History CD’s** which contain well history records. The well data include well spud point location (latitude and longitude thereof generated by Tobin International, Ltd.), field names, producing formation(s), and well type at the time of completion.
- d. Many of the Rocky Mountain States have **official websites** that provided supporting data on locations and field names. Links to the websites used in this study are listed below.

## Appendix 6 EIA Proved Reserves Estimation and Field Boundary Construction

Colorado web mapper	<a href="http://cogcweb.state.co.us/maps/">http://cogcweb.state.co.us/maps/</a>
Colorado data	<a href="http://oil-gas.state.co.us/">http://oil-gas.state.co.us/</a>
Montana web mapper	<a href="http://www.bogc.dnrc.state.mt.us/website/mtcbm/webmapper_intro.htm">http://www.bogc.dnrc.state.mt.us/website/mtcbm/webmapper_intro.htm</a>
Montana data	<a href="http://bogc.dnrc.state.mt.us/jdpIntro.htm">http://bogc.dnrc.state.mt.us/jdpIntro.htm</a>
New Mexico web mapper	<a href="http://geoinfo.nmt.edu/resources/petroleum/poolmaps.html">http://geoinfo.nmt.edu/resources/petroleum/poolmaps.html</a>
New Mexico data	<a href="http://octane.nmt.edu/data/">http://octane.nmt.edu/data/</a> , <a href="http://www.emnrd.state.nm.us/ocd/data.htm">http://www.emnrd.state.nm.us/ocd/data.htm</a>
South Dakota maps (not interactive)	<a href="http://www.sdgs.usd.edu/digitalpubmaps/testholewells_testholewellsmapne.html">http://www.sdgs.usd.edu/digitalpubmaps/testholewells_testholewellsmapne.html</a>
South Dakota data	<a href="http://www.state.sd.us/denr/DES/Mining/Oil&amp;Gas/producti.htm">http://www.state.sd.us/denr/DES/Mining/Oil&amp;Gas/producti.htm</a>
Utah web mapper	<a href="http://dogm.nr.state.ut.us/oilgas/MAP%20SEARCH/map_search.htm">http://dogm.nr.state.ut.us/oilgas/MAP%20SEARCH/map_search.htm</a>
Utah data	<a href="http://dogm.nr.state.ut.us/oilgas/qref_Find_data.htm">http://dogm.nr.state.ut.us/oilgas/qref_Find_data.htm</a>

- e. **Federal lands** boundary data provided by the Department of the Interior.

### Limitations Imposed by the Available Data Sources

A variety of shortcomings and flaws in the presently available data sources impose unavoidable limitations either on what can be done or on the achievable level of accuracy. Chief among these are:

- 1) Aside from the Form EIA-23 survey data base, which contains standardized field name spellings and corresponding standardized field codes, field and reservoir names are all too frequently non-standard as respects content and/or spelling. This makes accurate automated -- often even manual -- matching of field and well records across data sources difficult at best and sometimes impossible. While the standardized field codes are assigned and supported by EIA, most field names and their spellings are assigned by State agencies. Much of the problem is rooted in the fact that, over the past two-plus decades, many of the producing States have trimmed the resources devoted to this task, with the result that the extant staffs are overburdened and large backlogs exist. When reporting well or production information for a field on which the State has not yet acted, a field's operator is free to use any name it fancies, spelled however it wishes.

An additional causative factor was the demise of the American Association of Petroleum Geologists' Committee on Statistics of Drilling, which for many years performed an essential initial and subsequently recursive quality control function relative to the Nation's well statistics and field and reservoir identities. Staffed by experienced industry personnel whose services were "voluntarily" contributed by the firm they worked for, the Committee was disbanded in the wake of the 1986 oil price collapse. Its files were turned over to the American Petroleum Institute (API) which for many years attempted to maintain and update them absent the "in-the-field" quality control that the Committee had provided. When API's budget also diminished, and the last of the API staff familiar with the well files retired, they were transferred to two competing commercial data vendors for continued maintenance and updating. Both recipient firms are now subsumed in IHS.

- 2) Well misclassification is a perennial problem. For the most part, it is caused by insufficient recursive quality control. For example, a new well may initially be classified as a wildcat well, which by definition has discovered a new field. Subsequent drilling of extension wells in this or an adjacent field may, over time (sometimes over decades) connect the two adjacent fields, at which point both fields will shift to the field name of the earliest discovered of the two. This and similar sorts of things happen frequently, but that fact often never filters backward in time,

i.e., in this case to re-classification of the wildcat well type to extension or even development status.

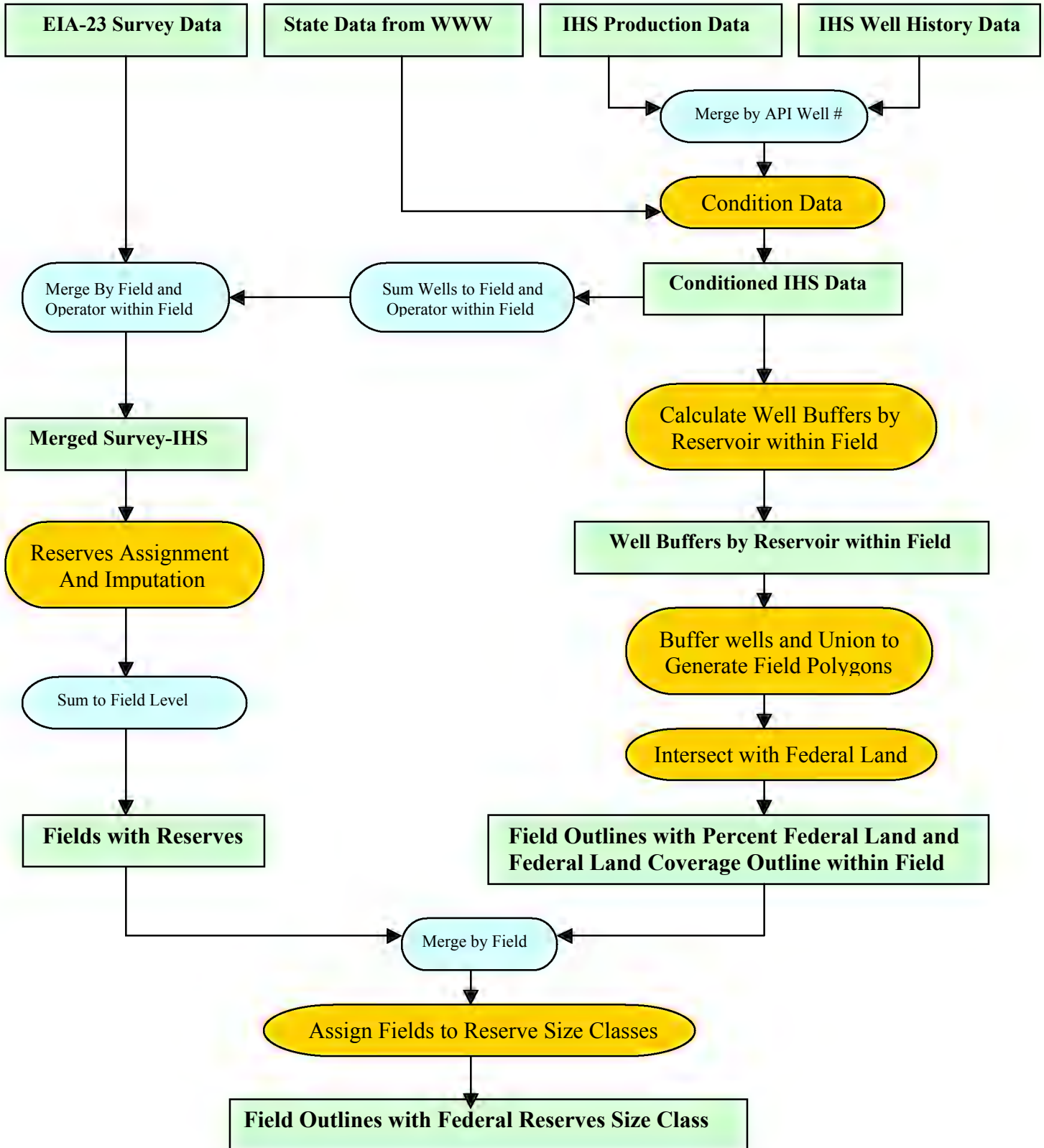
- 3) With the notable exception of fields located on the Federal Outer Continental Shelf, the Federal government does not as a rule have access to subsurface data other than the usually incomplete well-specific data resident in the IHS Well History file. We do not have access to field operators' seismic data and interpretations, nor to their surface and subsurface geologic maps, nor to their well logs. Such information has historically been treated as proprietary and private in the United States. In the context of the EPCA study, lack of this information limits what can be done as respects the construction of field boundaries to a purely geometric approach based on the buffering of well locations around their surface spud points.

The resultant field boundaries are therefore approximations, the accuracy of which in the absence of adequate subsurface information depends to a greater or lesser extent, from case-to-case, on the professional judgment of RPDs experienced petroleum geologists and engineers as to what appears to be a reasonable boundary. *Collectively the field boundaries provided here are likely to be of sufficient accuracy for policy formulation as respects access to Federal onshore lands. But in specific instances, they may not be good enough for the application of policy and regulation.*

### **General Process Overview**

Figure A6-1 is a flow chart of the major steps followed in estimation of field-level proved reserves (on the left-hand side) and the construction of field boundaries (on the right-hand side), as well as their merger into the final principal reserves product. The following discussion provides details for each of the indicated steps.

Figure A6-1 Proved Reserves Estimation and Field Outline Development  
 Process Flows

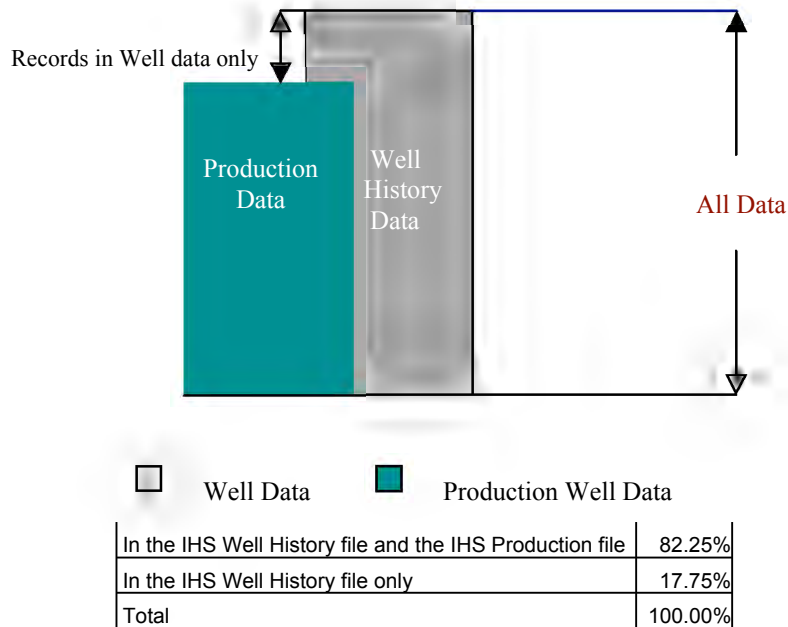


**Data Conditioning**

Merging of the IHS Production and Well History files

This step combined the annual production data with well location and well type. The API well number, present in both files, was the key to this merging process. Figure A6-2 shows the percentage of wells that were matched by API number and the percentage that was unique to the Well History file.

**Figure A6-2 Matching of Wells by API Number and Source**



IHS Well History records that did not match with IHS Production records were most often dry holes, injection, or storage wells. These were discarded. To create valid field boundaries, only oil and gas wells were retained, whether or not they had recorded 2001 production data. The following rules and procedures were developed and used to merge the files:

- a. Preparation of spud point location information (well latitude and longitude at the surface)

The location information in the IHS Well History file is Tobin’s most accurate coordinates. They were therefore used when available. If location information was not present in the Well History file, the location information in the Production file was used. If location information was not available in either dataset, the well record was deleted from the data used for field boundary construction. These well records were, however, retained for merger with the Form EIA-23 data base because, even absent a location, these wells could at the field level be rolled up with other wells in the same field for which location information was available.



**Appendix 6**  
**EIA Proved Reserves Estimation**  
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b. Editing/Renaming of Fields and Reservoirs

As previously noted, variations in field and reservoir names and spellings are common in the commercially-vended data files and some State sources. Names were altered when necessary to make them as consistent as possible. The problem of missing names also had to be addressed, often through contact with State personnel. To achieve better field boundaries it was assumed that the buffers created for wells should be calculated on a reservoir level and that the field boundary would then be constructed by unioning of the reservoirs in the field.

Names carried on the IHS Production file were used when they were available. Otherwise, names from the IHS Well History file were used.

If a record appeared not to have a legitimate *field* name, (e.g., ‘UNDESIGNATED’, ‘UNKNOWN’, ‘WILDCAT’), a concatenation of Basin and State was used to replace it (e.g. new field names like “PRB\_WY”, “UPB\_CO”, “UPB\_UT”, etc, were created). When records appeared not to have a legitimate *reservoir* name, (e.g., ‘UNKNOWN’, ‘UNKNWN’, ‘WILDCAT’), “UNNAMED” was used as reservoir name.

If a reservoir name was abbreviated, the full reservoir name was assigned. If a reservoir name was augmented by a layer/zone/horizon modifier (e.g. “Dakota A,” “Dakota B”) the modifier was removed (e.g. all were changed to “Dakota”). Most records did not have horizon information available so the zone name was used instead as the best available data for reservoir naming.

Some field names were changed based on information obtained from State websites and conversations with State agency personnel. The CBM reservoir and field names were especially affected by the State agencies. For example, as development progressed in Wyoming’s Powder River Basin (PRB) the State initially classified wells into fields using a system originally designed for application to conventional reservoirs and fields. The result was usually related to pre-existing field names for deeper conventional oil and gas reservoirs. In apparent belated recognition that the CBM in the PRB is really resident in a whole coal field, they now assign all CBM wells in the basin to the field “PRB,” i.e., the wells are assigned to a field comprising the entirety of a producing coal seam (see <http://wogcc.state.wy.us/coalres.cfm> for a list). After conversations with geologist Gary Strong of the Wyoming Oil & Gas Conservation Commission, it was decided that for this study all wells in the PRB with a producing coal reservoir name or which had the IHS attribute “CBM” = yes would be reclassified into the field “PRB\_CBM\_WY”. An exception to this procedure was the Fort Union formation where, per Strong, most of the current wells are CBM completions but a few are conventional oil or gas. Thus Fort Union wells were not put into “PRB\_CBM\_WY” unless “CBM” = yes or the word “coal” was in present in the reservoir name.

c. Identification of Well Types for Later Buffering

Deciding which wells to include in the buffering process was critically important to the construction of field boundaries. All wells with type = oil or gas in the IHS Production file were kept. If wells were identified as a dry hole, a CO<sub>2</sub> producer, or an injection well in the IHS Production file, but were identified as an oil or gas well in IHS Well History file, the well type was reclassified to oil or gas. If well records came from IHS Well History file only, the many well types were grouped into four classes: Oil, Gas, Dry hole,

and Injection. Following final assignment of the well type, only the oil and gas wells were retained for input to the buffering process.

### **The Construction of Well Buffers**

The procedure used to generate well buffers consisted of several development and application steps:

a. Testing of Alternative Procedures

Creation of oil and gas field boundaries was accomplished using ArcGIS. The first method tested was the convex polygon method, which draws a minimum-bounding polygon around a group of wells such that all of the outer angles are convex. While this technique is fine for a structurally simple field, such an oval-shaped anticline with a uniform hydrocarbon-water contact, many fields have an irregular boundary owing to stratigraphic and/or structural complexity. For these fields a convex hull overestimates productive acreage.

The second method tested was the triangular irregular network (TIN). A TIN represents a set of points (wells) as a set of contiguous, non-overlapping triangles. The triangles are then unioned into one polygon for the entire field. This method has the advantage of being able to include a z-value such as thickness or perforated interval. Its disadvantage is that the maximum edge length for triangle construction must be specified field-by-field, which made it too laborious for a project with almost 2000 fields boundaries to build.

The method ultimately used for construction of the field boundaries was to buffer each well in a field with a circle. The radius of the circle was determined by analysis of the spacing pattern for each reservoir in the field. The buffer polygons were then unioned into a single field boundary polygon record for each field. Given the time constraints on the EPCA project, this method was selected because it most effectively utilizes the different reservoir spacing patterns within a field and is relatively easy to perform on a large data set.

Figure A6-3 shows Bell Creek Field with the field boundaries created using each of the three methods described above. The convex hull boundary shown does not include all of the field's wells, only those in the Muddy reservoir.



Inter-Well Distance		Nominal Spacing Unit (acres)	Corresponding Buffer Radius (feet)
Lower Bound (feet)	Upper Bound (feet)		
0	277	1.25	233
277	392	2.5	330
392	555	5	467
555	785	10	660
785	1110	20	933
1110	1570	40	1320
1570	2220	80	1867
2220	3140	160	2640
3140	4440	320	3734
> 4440		640	5280

*Table A6-2. Interwell Distance Ranges, Nominal Standard Well Spacings, and Buffer Radii*

c. Well Buffer Construction Rules

Rules for the assignment of buffers were created to handle reservoirs that did not, for whatever reason, readily yield a nominal spacing. They are based on well types and well counts.

1. For oil reservoirs, the maximum spacing allowed was 160 acres, i.e. a buffer radius of 2,640 feet (exceptions are listed below).
2. If the reservoir had between 1 and 10 oil wells or the reservoir name was 'UNNAMED', a spacing of 160 acres was assigned.
3. For gas reservoirs the maximum spacing allowed was 640 acres, i.e. a buffer radius of 5,280 feet (for exceptions, see below).
4. If the reservoir had only 1 gas well or the reservoir was named 'UNNAMED', a spacing of 640 acres was assigned.
5. For coal bed methane wells a spacing of 160 acres was assigned, i.e. a buffer radius of 2,640 feet (exceptions are listed below).
6. If the oil well count / (oil well count + gas well count) ratio was less than or equal to 5% and if the oil well spacing was greater than the gas well spacing, the oil well spacing was set to the gas well spacing; otherwise, the original oil well spacing was retained.

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7. If the ratio of gas well count/(oil well count + gas well count) was less than or equal to 5%, the gas well spacing was set to the oil well spacing for the field or reservoir; otherwise, the original gas well spacing was retained.

d. Exceptions to These Rules

Altamont-Bluebell-Cedar Rim Field (three names for different parts of same physical field), Uinta Basin, Utah:

The P75 calculated buffer radius for the main Green River and Wasatch reservoirs ranges from 320-640 acres. Because production is oil, the default maximum 160-acre buffer was used initially, resulting in numerous isolated polygon rings. According to Montgomery and Morgan (1998, *American Association of Petroleum Geologists (AAPG) Bulletin* 82:6:1113-1132), the major portion of this field was developed on 320-ac spacing for the fractured Green River and Wasatch reservoirs. Thus, an exception was made in this field and 320-acre spacing was assumed for the buffers (3,734 feet buffer radius).

Puerto Chiquito West Field, San Juan Basin, New Mexico:

The P75 calculated buffer radius for the main Mancos reservoir is 640 acres. Because the production is oil, the default maximum 160-acre buffer was used initially, resulting in numerous isolated polygon rings. Spacing rules for the field specify 320-acre units due to the excellent reservoir communication in the fractured Mancos, according to Gorham et al (1979, *AAPG Bulletin* 63:4:598-607). Thus, 320-acre spacing was assumed for buffer construction (3,734 feet buffer radius).

Blanco Field, San Juan Basin, New Mexico:

This field ranks third within the study area as respects total number of wells. It has 8,669 wells, of which 8,498 are Mesa Verde Formation gas completions. The P75 calculated buffer distance of 2130 feet for the Mesa Verde falls in the uppermost range of 1570'-2220' for 80-acre units. At that default spacing, the resultant product shows numerous small gaps between the buffers. The largest fields (in numbers of wells and reserves) such as Blanco are so much larger than the average field that they warrant making of an exception if the default buffer size does not appear to be appropriate. Therefore, 160-acre spacing was assumed (2,640 feet buffer radius).

Fruitland Coal Reservoir, Basin Field, San Juan Basin, New Mexico:

The default radius of 160 acres was overridden on the basis of results of consultations with individuals familiar with the field. 320 acre spacing was assigned, i.e., the buffer radius is 3,734 feet.

**The Construction of Field Boundaries**

A SAS file containing the oil and gas well data labeled with field name attribute "Field" and reservoir name attribute "Reservoir" was imported into ArcGIS as a dBase (.dbf) file. The wells were then plotted and converted to a geodatabase feature class. The coordinate system used was geographic, decimal degrees, NAD27.

Visual Basic for Applications (VBA) code was written within ArcGIS to provide an automated procedure for creation of polygonal field boundaries from buffered wells. The principal steps performed were:

- Select the "field name" attribute and "buffer distance" attribute from the well file
- Select all wells with the first "field name" encountered
- Create a buffer around each selected well using "buffer distance"
- Union the buffers
- Dissolve the barriers between overlapping buffers
- Iteratively perform the above steps for each unique "field name"
- Output a polygon feature class with one polygon (often consisting of multiple polygon rings) for each field
- Convert to a shapefile

### **Calculation of the Federal Lands Fraction within a Field's Boundary**

The Federal land ownership coverages provided by the Department of the Interior (one coverage per basin) were utilized. A definition query of "Minerals" = 'Fed' was used to exclude private and state land within the coverages. An automated procedure was developed to calculate the fraction of federal land and acres of federal land within each oil and gas field polygon. It:

- Intersected the federal land coverages with the field polygons
- Populated two columns in the field boundary polygon table: "FractionFedLand" and "Fed\_Acres."

In the process of calculating the fraction of federal land in the PRB, a "non-simple geometry" error was encountered. The only way to work around this was to eliminate some of the very small slivers of non-federal land in the PRB coverage. While such slivers are present in all five federal land coverages, they only caused problems in the PRB. These are likely not real gaps in federal ownership. Rather, they are most probably the result of merging land parcels from different sources and/or with different projections. The ELIMINATE command was used to merge narrow slivers of non-federal land smaller than 0.5 acres into adjacent federal land polygons. The resultant coverage was visually checked against the original to insure that no non-sliver land parcels were eliminated. After this was done, the calculation proceeded without error.

### **Review and Quality Control of the Resulting Maps**

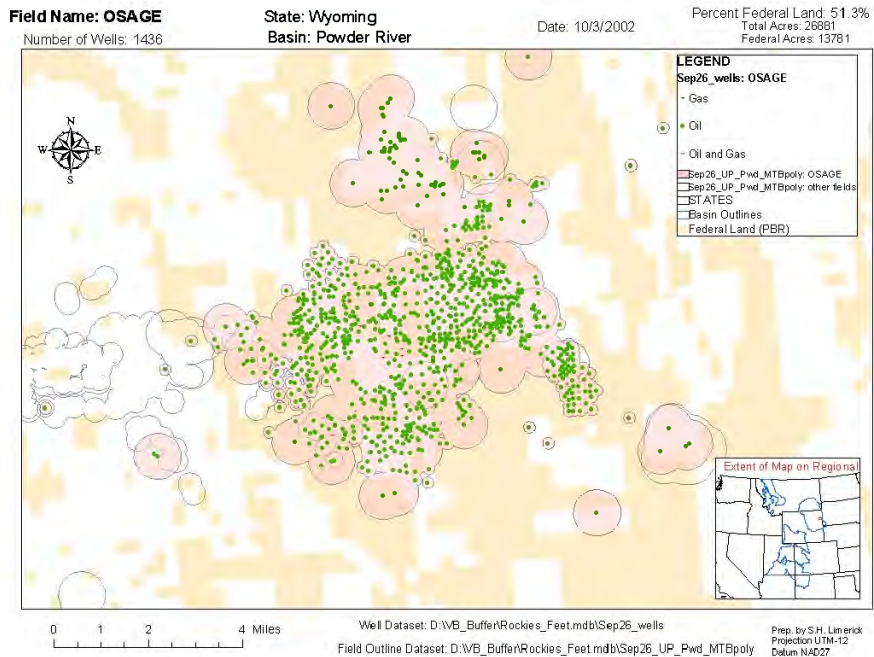
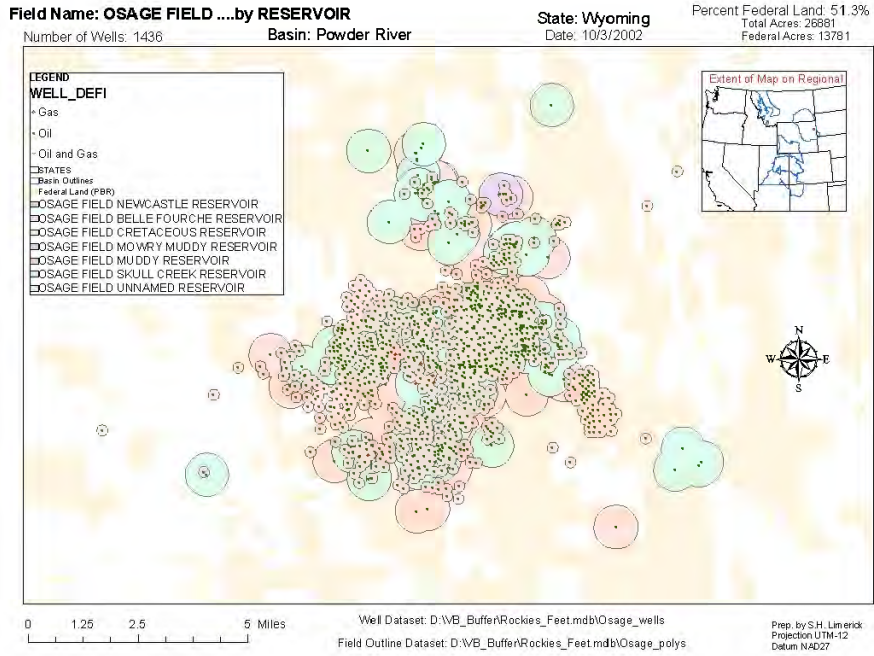
An additional part of the VBA routine not included in the above list of steps automated the construction of field boundary maps for quality checking purposes. The maps displayed the wells in the field and the field boundary polygon. They also showed selected field attributes such as State, basin, and percent Federal land.

To quality control the resultant buffers at a more detailed level, boundaries were also constructed at the reservoir level to determine whether the buffer sizes appeared to be appropriate in fields that had multiple reservoirs. Numerous fields were checked in this fashion to verify that the buffering rules produced a reasonable field boundary.

The final field-level buffers and fraction of federal land calculations were checked by inspection of approximately 150 field maps which covered all fields that had more than 300 wells or more than 500,000 barrels-of-oil equivalent proved reserves per the 2001 Form EIA-23 survey.

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EIA Proved Reserves Estimation  
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Figure A6-4 provides an example of the quality control maps.



**Figure A6-4 Osage Field, Powder River Basin, Wyoming, Showing Buffers by Reservoir (top) and the Field Boundary Resulting from their Union (bottom)**

### **Field-Level Proved Reserves Estimation**

The conditioned IHS well history and production data were summed to the field/operator level and then merged with the by-field proved reserves estimates reported on Form EIA-23 by the largest operators.

Of the 753 field/operator combinations, only 40 (about 5%) could not be matched to the IHS data. Since they could not be matched, they were not mappable owing to lack of location information; their relationship to federal lands is unknown. The portion of total proved reserves contributed by these unmatched fields was very small -- about 1 percent.

Of the 713 field/operator combinations that matched with the IHS data, 398 (about 56%) had all operators in the field reporting. The proved reserves estimates submitted for these fields were used as-reported.

Of the 713 field/operator combinations that matched with the IHS data, 315 (about 44%) had part of their proved reserves reported by the surveyed operators. The remainder of these fields' proved reserves was estimated by RPD. Imputation of proved reserves was accomplished by assigning the weighted average reserves-to-production ratio of the reporting operators to the non-reporting operators. The non-reporting operators' production volumes, taken from the IHS data, were multiplied by this ratio to impute proved reserves for the non-reported portion of these fields.

Proved reserves imputation was also necessary for the remaining 542 fields that had recorded 2001 production, but whose operators were not required to submit Form EIA-23. Although these fields constitute a sizeable fraction of the total fields in the study areas, their proved reserves are only a small portion of total proved reserves, less than 4%. Predictive regression equations were developed to estimate the proved reserves of these fields, as follows:

a. **Development of Regression Equations**

The proved reserves estimates and corresponding production data reported on the 2001 Form EIA-23 were used to develop least squares regression equations quantitatively descriptive of the relationship between two. The equations were then used to impute proved reserves for the 542 fields whose operators were not required to complete a Form EIA-23, based on their IHS production data.

Four equations were developed using SAS statistical software, one each for oil, associated-dissolved gas, nonassociated gas, and condensate. The form of the equations is:

$$\log_e (\text{Proved Reserves}) = a + b \log_e (\text{Production})$$

The resulting parameters, the number of proved reserves and production pairs each is based on (n), and the goodness of fit statistics ( $r^2$ ) are provided in Table A6-3.



**Appendix 6  
EIA Proved Reserves Estimation  
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Product	n	a	b	r <sup>2</sup>
Crude Oil	460	1.4725	1.0924	0.90
Associated-Dissolved Gas	208	1.6646	1.0237	0.93
Nonassociated Gas	672	1.6559	1.0687	0.84
Condensate	294	1.9140	1.0030	0.73

**Table A6-3 Regression Equations for the Estimation of Non-Reported Reserves**

b. Assignment and Imputation of Proved Reserves

When operators reported both production and proved reserves on Form EIA-23, the reported volumes were used. When one or more operators reported for a field but one or more other operators did not report, a weighted average reserves to production ratio was calculated for the reporting operators and multiplied by the missing operators' IHS production to estimate their proved reserves. When a field had no reporting operators, the regression equations shown above were used to impute reserves based on the IHS production data for the field. The final step was to sum the reported and imputed proved reserves to obtain the total proved reserves estimate for the field.

Crude oil proved reserves were then summed with proved condensate reserves to yield proved liquid reserves. Similarly, proved associated-dissolved gas reserves and proved nonassociated gas reserves were summed to yield total proved gas reserves. Last, a gas-to-oil ratio of 6000 cubic feet per barrel was used to convert proved gas reserves to their oil equivalent, which was then summed with proved liquid reserves to yield proved barrel-of-oil-equivalent reserves.

c. Reserves Classification

In order to sufficiently protect the proprietary proved reserves data submitted to EIA, each field was placed into a reserves class, by product, per the following classification scheme:

Class Number	Proved Liquid Reserves
0	Zero reserves (i.e., no recorded 2001 production)
1	Greater than zero but less than 10 Mbbl liquid
2	Greater than 10 but less than 100 Mbbl liquid
3	Greater than 100 but less than 1000 Mbbl liquid
4	Greater than 1000 but less than 10000 Mbbl liquid
5	Greater than 10000 Mbbl liquid

Class Number	Proved Gas Reserves
0	Zero reserves (i.e., no recorded 2001 production)
1	Greater than zero but less than 10 MMcf gas

- 4 Greater than 10 but less than 100 MMcf gas
- 5 Greater than 100 but less than 1000 MMcf gas
- 4 Greater than 1000 but less than 10000 MMcf gas
- 5 Greater than 10000 but less than 100000 MMcf gas
- 6 Greater than 100000 MMcf gas.

Class Number	Proved BOE Reserves
0	Zero reserves (i.e., no recorded 2001 production)
1	Greater than zero but less than 10 MBOE
2	Greater than 10 but less than 100 MBOE
3	Greater than 100 but less than 1000 MBOE
4	Greater than 1000 but less than 10000 MBOE
5	Greater than 10000 but less than 100000 MBOE
6	Greater than 100000 MBOE

Note: M=1,000; MM=1,000,000; bbl=barrel; cf=cubic feet

**Merging of Proved Reserves Classes with Field Boundaries and Fraction of Federal Land**

A GIS file was then produced that contains the intersection of the Federal land coverages with the field boundaries. Owing to the existence of multiple federal land parcels within each field boundary, the resultant boundary polygons were then dissolved on the attribute "field" to union the data into one polygon record per field. A table with the reserve classes by field (range 0 to 6) and the field name was then joined to the dBase file associated with the field boundary shapefile. The latter was then converted to coverage format and thence to interchange file format (.e00).

**Summary of Results**

GIS is clearly the information conveyance method of choice where both analysis of Federal lands policy and regulations and their application are concerned. The primary proved reserves result is therefore a GIS layer containing field boundary polygons attributed with field name and a proved reserves size class for each field product. Unfortunately, none of that detailed information can be usefully conveyed on a piece of paper this size. You have to use a GIS workstation to view it and a wide-format printer to print it at a size where detail can be distinguished. Therefore, in lieu of such a close look at the reserves results, basin-by-basin summary statistics are provided in Table A6-4.

**Appendix 6  
EIA Proved Reserves Estimation  
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Basin	Number of Fields	Total Liquid Reserves (Mbbbl)	Federal Land Liquid Reserves	Percent	Total Gas Reserves (MMcf)	Federal Land Gas Reserves	Percent	Total BOE Reserves (Mbbbl)	Federal Land BOE Reserves	Percent
<i>Paradox-San Juan</i>	250	174,193	53,103	30.5	20,653,622	11,033,357	53.4	3,616,464	1,891,996	52.3
<i>Uinta-Piceance</i>	180	254,329	142,495	56.0	7,181,669	3,779,755	52.6	1,451,274	772,454	53.2
<i>Greater Green River</i>	281	177,362	122,234	68.9	12,703,038	10,081,667	79.4	2,294,535	1,802,512	78.6
<i>Powder River</i>	543	193,456	110,783	57.3	2,398,604	927,738	38.7	593,223	265,406	44.7
<i>Montana Thrust Belt</i>	1	1	0	0.0	0	0	0.0	1	0	0.0
<b>Total</b>	1,255	799,341	428,616	53.6	42,936,933	25,822,517	60.1	7,955,497	4,732,368	59.5

*Table A6-4 Summary of 2001 Federal Lands Proved Reserves by Study Area*

Another notable result involves the hypothesis that:

- 1) on-average, and
- 2) owing to the existence of stipulations and other impediments to drilling on Federal lands beyond those customarily associated with private leases,

Even within the boundaries of the study area's producing fields, the well density would be lower on the Federal lands than on the non-Federal lands.

The well density on Federal lands within study area's fields was found to be 103.5 acres per well, or 6.19 wells per square mile (640 acres). The well density on the non-Federal lands within the study area's fields was found to be 96.5 acres per well, or 6.63 wells per square mile. This result supports the hypothesis.

## APPENDIX 7

### GIS METHODOLOGY

Following are further descriptions of how Federal lands were categorized into the ten categories referred to in table 2c in Section 2.4.1 and a detailed description of the GIS methodology used.

Table A7-1 shows the “No Leasing Pending Land Use Planning or NEPA Compliance (NLA/LUP)” jurisdictions within the EPCA inventory area.

FS or BLM jurisdiction	Comments
Ashley NF	Northern unit only  Areas east of of Highway 191           Western portion only  Medicine Bow portion only  Unmapped western portions only
Big Horn NF	
Bitterroot NF	
Bridger-Teton NF	
Custer NF	
Dillon, MT BLM Field Office	
Dixie NF	
Fish Lake NF	
Flathead NF	
Gallatin NF	
Gunnison, CO BLM Field Office	
Kootenai NF	
Lewis and Clark NF	
Lolo NF	
Rio Grande NF	
Routt-Medicine Bow	
Wasatch-Cache NF	
Uinta NF	

**Table A7-1      Jurisdictions Classified as NLA/LUP**

Table A7-2 shows how agency jurisdictions were used to categorize lands for this inventory.

**Appendix 7  
GIS Methodology**

Federal Land Management		Categorization	Level
Bureau of Land Management	BLM	Subject to stipulations	
Bureau of Reclamation	BREC	Subject to stipulations	
Department of Agriculture*	USDA	No Leasing (Administrative), general category (NLA)*	3.
Department of Defense**	DOD	No Leasing (Administrative), general category (NLA)**	3.
Federal Split Estate	SPLIT	Subject to stipulations	
Fish and Wildlife Service	FWS	No Leasing (Administrative), general category (NLA)	3.
Forest Service	FS	Subject to stipulations	
National Park Service	NPS	No Leasing (Statutory/Executive Order), (NLS)	1.
Federal Land Use Designations			
Inventoried Roadless Areas	IRA	Subject to stipulations	
National Conservation Areas	NCA	No Leasing (Statutory/Executive Order), (NLS)	1.
National Monuments	NM	No Leasing (Statutory/Executive Order), (NLS)	1.
National Recreation Areas	NRA	No Leasing (Statutory/Executive Order), (NLS)	1.
National Wildlife Refuges	NWR	No Leasing (Statutory/Executive Order), (NLS)	1.
Special Designated Areas	SDA	No Leasing (Statutory/Executive Order), (NLS)	1.
Wilderness Areas	WILD	No Leasing (Statutory/Executive Order), (NLS)	1.
Wilderness Reinventory Areas	WRA	No Leasing (Administrative), general category (NLA) for offices listed in next table; otherwise subject to stipulations	3.
Wilderness Study Areas	WSA	No Leasing (Statutory/Executive Order), (NLS)	1.

\* Ft. Keo Agricultural Experimental Station, MT, only

\*\* Except for the Naval Petroleum Reserve, Casper Field Office, which is subject to stipulations

**Table A7-2 Federal Land Categorization**

Jurisdiction	Comments
Ashley NF	
Farmington NM BLM Field Office	
Glenwood Springs CO BLM Field Office	
Grand Junction CO BLM Field Office	Uinta/Piceance Study Area
Grand Mesa /Uncompahgre /Gunnison NF	
Gunnison CO BLM Field Office	
Kemmerer WY BLM Field Office	
Lander WY BLM Field Office	
Little Snake CO BLM Field Office	GGR Study Area
Manti La Sal NF	
Moab CO BLM Field Office	
Monticello CO BLM Field Office	
Pinedale WY BLM Field Office	
Price UT BLM Field Office	
Rawlins WY BLM Field Office	
Rock Springs WY BLM Field Office	
Routt-Medicine Bow NF	
Uinta NF	
Uncompahgre CO BLM Field Office	Uinta/Piceance Study Area
Vernal UT BLM Field Office	
White River CO BLM Field Office	
White River NF	

**Table A7-3 Jurisdictions with Wilderness Reinventory Areas (WRAs)  
Classified as NLA**

Jurisdiction	Comments
Cedar City UT BLM Field Office	Spring Creek Canyon only
Durango CO BLM Field Office	
Glenwood Springs CO BLM Field Office	
Grand Junction CO BLM Field Office	
Grand Mesa /Uncompahgre /Gunnison NF	
Little Snake CO BLM Field Office	
Price UT BLM Field Office	
Uncompahgre CO BLM Field Office	
Vernal UT BLM Field Office	

**Table A7-4 Jurisdictions with Citizen's Proposal Areas (CPAs) Classified as NLA**

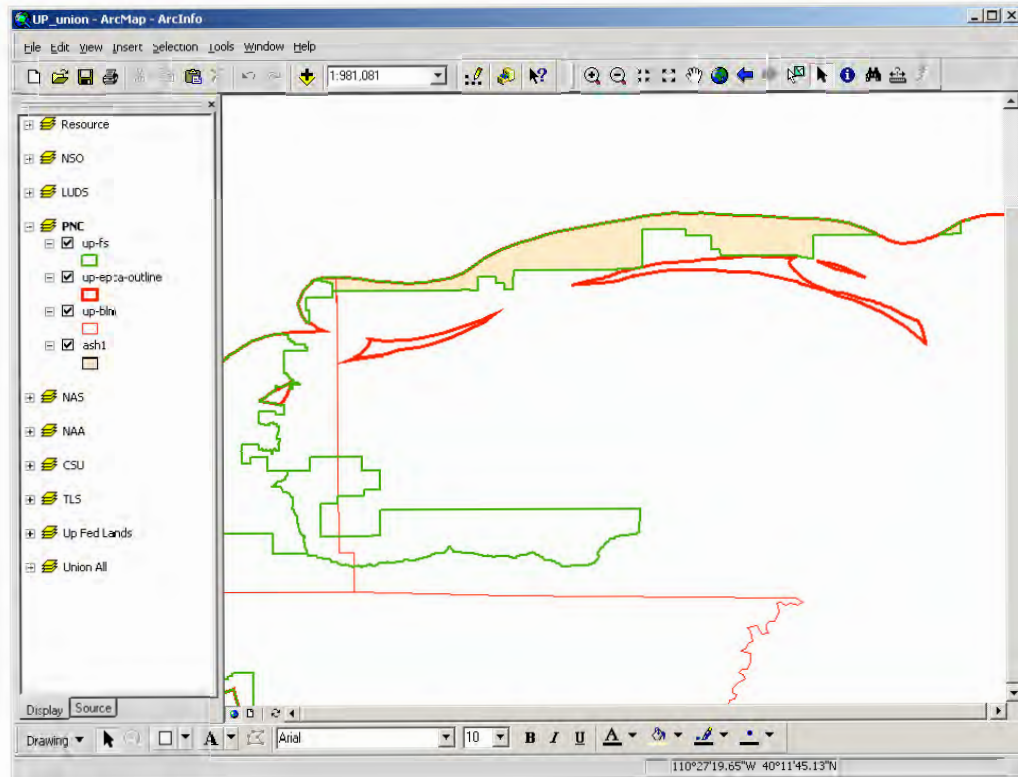
National Forests affected by the Roadless Areas Conservation Rule (36 CFR 294) were considered available for leasing in this inventory. The rationale for this decision is that as of the date of this report, implementation of the Roadless Rule has been enjoined by the Federal District Court of Idaho.<sup>12</sup> However, if current litigation upholds this rule, it could highly restrict or make inaccessible approximately 6.1 million acres within the study areas. For this reason, leases offered and/or issued in areas covered by the Roadless Rule have attached to them a Notice to Lessees informing them that all or part of the lease is within an area covered by this rule.

Citizens' Proposal Areas (CPAs) located on Federal land, primarily managed by the BLM in Utah and Colorado, are places which have been proposed as wilderness by environmental groups. The treatment of CPAs differs by state and by office (Table A7-4). In Utah, offices that have CPAs individually determine their treatment with respect to oil and gas leasing. In Colorado, the CPAs are generally considered NLA unless the area under consideration has been explicitly examined as part of a particular BLM Field Office's planning process.<sup>13</sup>

GIS files were available to define most of the access categories; however, for the NLA/LUP category, they had to be created. In these situations, the administrative boundary (such as a National Forest) was extracted from the surface ownership data and the resultant polygon was then attributed as NLA/LUP. For example in Figure A7-1, the national forests in the western Uinta Basin are shown in green. The beige area represents the Ashley National Forest (northern unit), which is categorized as NLA/LUP.

<sup>12</sup> Idaho vs. Dombeck CV01-11-N-EJL (D.C.Id. 2001 Kootenai Tribe of Idaho et al. vs. Dombeck). Colorado and Alaska have joined Idaho; Utah has also filed.

<sup>13</sup> BLM, Colorado State Office, Instruction Memorandum No. CO-97-044.



*Figure A7-1 Creation of NLA/LUP Shapefiles*

### *Stipulation Exceptions*

Sometimes exceptions to stipulations are granted for valid reasons. For example, for a crucial elk winter range timing limitation, an exception may be granted if seasonal conditions (e.g., an early spring and snowmelt) are such that the elk have moved out of and are not using the general areas during a particular year. Because records of exceptions to lease stipulations were not available, BLM and USDA-FS field personnel were asked to determine, based on their experience, which lease stipulations were granted exceptions for drilling and how often. The exception factors thus determined are shown by jurisdiction in Table A7-6.

Lease stipulations, particularly timing limitations, can overlap. Where exception factors overlap, the cumulative effect is calculated by multiplying the overlapping factors (from Table A7-6). This calculation implicitly assumes that exceptions for multiple stipulations would likely not be obtained for a given area. For example, cumulative effects of excepted stipulations for the Greater Green River study area are computed as shown in Table A7-7. The application of these exception factors is described below in the section titled “Analytical Modeling of Federal Lands and Resources.”

Jurisdiction	Exceptions to stipulations											Comments
	Big Game Winter Range	Raptors	Sage Grouse	Sleep slopes	Bald Eagle Winter Roost	Calving and Fawning	Antelope Fawning	City of Rifle Watershed	Sensitive Resources	Soils, Watershed	Sedimentation (roads)	
Buffalo WY BLM Field Office		25%	25%									
Carson NF	10%										10%	
Casper UT BLM Field Office	25%	25%										
Durango CO BLM Field Office	50%	50%			50%							
Glenwood Springs CO BLM Field Office							100%					Uinta/Piceance Study Area GGR Study Area
Glenwood Springs CO BLM Field Office	20%	30%	20%									
Grand Junction CO BLM Field Office	70%			15%				30%				
Kemmerer WY BLM Field Office	30%	50%	50%									
Lander WY BLM Field Office	20%	30%	20%									
Little Snake CO BLM Field Office	20%	30%	20%									
Manti La Sai NF				50%	80%							
Miles City MT BLM Field Office	50%	50%	10%									
Missoula MT BLM Field Office	20%	20%		15%								
Moab UT BLM Field Office	70%					70%			70%			
Pinedale WY BLM Field Office	50%	40%	40%									
Rawlins WY BLM Field Office	20%	30%	20%									
Rock Springs WY BLM Field Office	30%	25%	20%									
Routt-Medicine Bow NF	20%	30%	20%									GGR Study Area
Uncompahgre CO BLM Field Office	50%	50%			50%							Paradox/San Juan Study Area
Uncompahgre CO BLM Field Office	10%	10%										Uinta/Piceance Study Area
White River CO BLM Field Office	80%	25%										Uinta/Piceance Study Area
White River CO BLM Field Office	20%	30%	20%									GGR Study Area
White River NF												

**Table A7-6 Stipulation Exception Factors List by USDA-FS and BLM Office**

Stipulation	Exception Factor (EF)
Big Game	20%
Sage Grouse	20%
Raptors	30%
Big Game and Sage Grouse	4%
Big Game/Raptors	6%
Sage Grouse/Raptors	6%
Big Game, Sage Grouse and Raptors	1.2%

**Table A7-7 Exception Factors (GGR Study Area)**

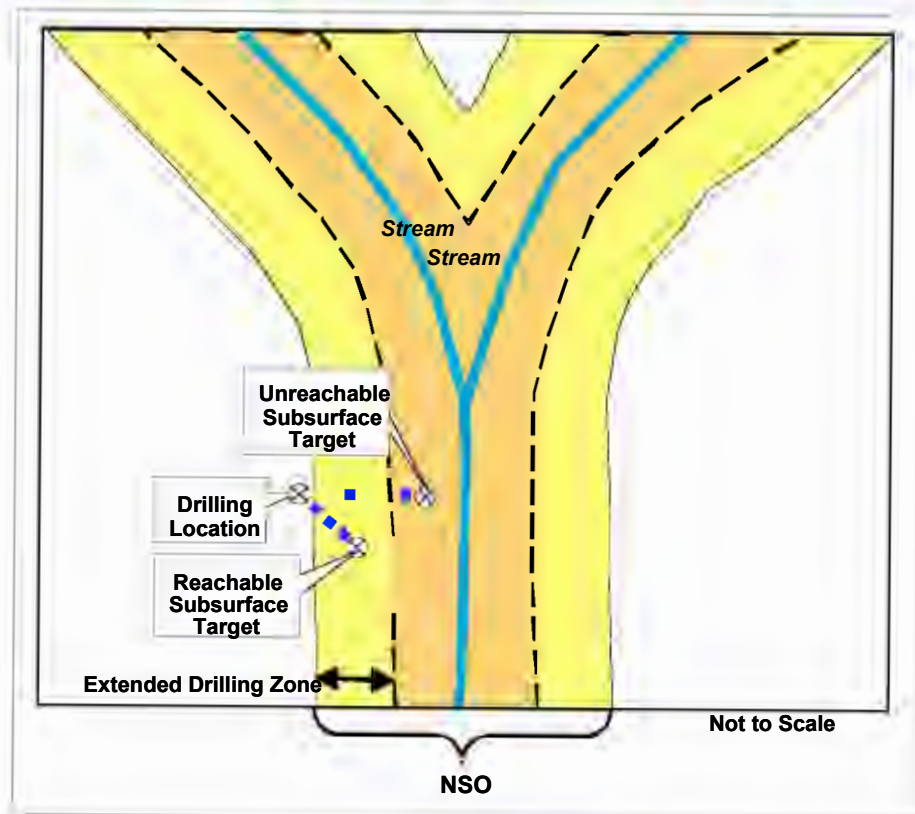
**Treatment of NSO Areas**

Directional drilling (or "extended drilling") is a technology that can be employed to reach subsurface targets not located directly underneath the drill site. Resources beyond a certain "extended drilling zone" (EDZ) are assumed not to be technically recoverable (Figure A7-2). While it is true that directional drilling horizontally out to distances of 5 or 6 miles is possible in production settings such as Alaska, this type of drilling is impractical for exploration in the Western basins.



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Directional drilling for exploratory purposes occurs in Western basins, but it is much more limited in scope. As in the case of stipulation exceptions, BLM and USDA-FS field personnel were interviewed to determine the practicable width of the EDZ. The width of the EDZ is partially a function of the depth to the drilling objective—generally the deeper the objective, the larger the EDZ. The EDZ distances supplied by the offices and used in the EPCA inventory are shown in Table A7-8.



*Figure A7-2. Extended Drilling Zone*

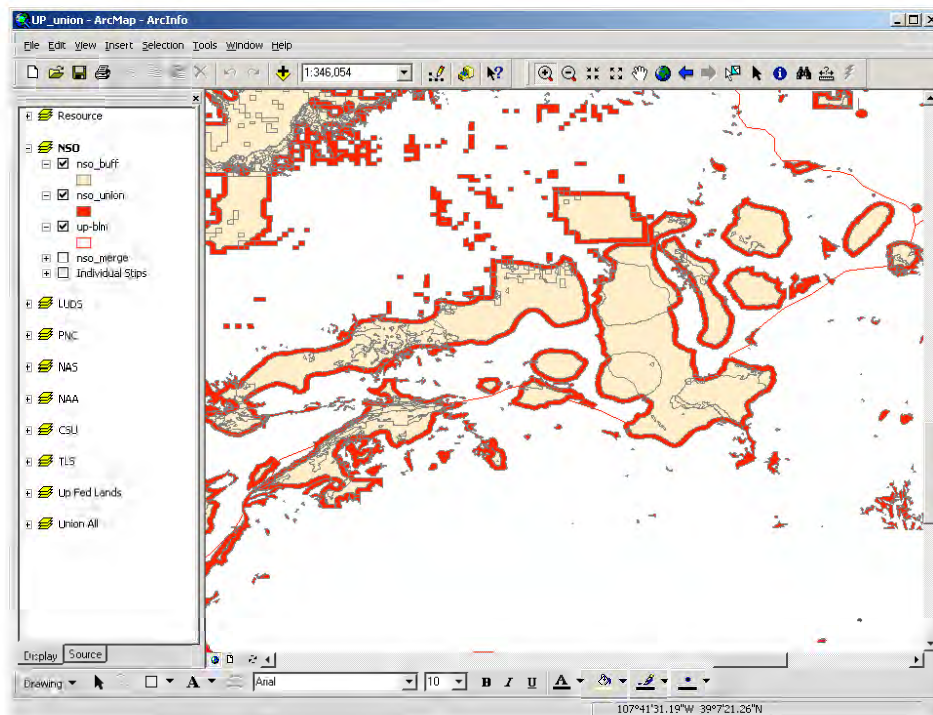
The effect of the inclusion of the EDZs in the analysis was to remove an area of land from the perimeters of NSO polygons. The width of this area removed via GIS processing is determined by Federal jurisdiction (Table A7-8). The area removed then defaults to the access category that would otherwise apply in the absence of the NSO stipulation. The net effect is that the underlying resource is no longer considered inaccessible even though the surface above it cannot be occupied by drilling equipment.

Jurisdiction	EDZ (miles)	Comments
Albuquerque NM BLM Field Office	0.25	
Ashley NF	0.25	
Beavehead-Deerlodge NF	0.50	
Black Hills NF	0.25	
Buffalo WY BLM Field Office	0.25	
Buffalo Gap NG	0.13	
Butte MT BLM Field Office	0.25	
Carson NF	0.25	
Casper WY BLM Field Office	0.25	
Cedar City UT BLM Field Office	0.00	
Cibola NF	0.25	
Durango CO BLM Field Office	0.00	San Juan Basin portion
Durango CO BLM Field Office	0.50	Paradox Basin portion
Farmington NM BLM Field Office	0.25	
Glenwood Springs CO BLM Field Office	0.25	
Grand Junction CO BLM Field Office	0.25	
Grand Mesa /Uncompahgre /Gunnison NF	0.00	Paradox/San Juan Study Area
Grand Mesa /Uncompahgre /Gunnison NF	0.25	Uinta/Piceance Study Area
Gunnison CO BLM Field Office	0.25	
Helena NF	0.25	
Kanab UT BLM Field Office	0.00	
Kemmerer WY BLM Field Office	0.25	
Lander WY BLM Field Office	0.25	
Lewis and Clark NF	0.25	Eastern portions only
Lewistown MT BLM Field Office	0.25	
Little Snake CO BLM Field Office	0.25	
Manti La Sal NF	0.25	Paradox/San Juan Study Area
Manti La Sal NF	0.50	Uinta/Piceance Study Area
Miles City MT BLM Field Office	0.25	
Missoula MT BLM Field Office	0.50	
Moab UT BLM Field Office	0.25	
Monticello UT BLM Field Office	0.25	
New Castle WY BLM Field Office	0.00	
Oglala NG	0.13	
Pinedale WY BLM Field Office	0.25	
Price UT BLM Field Office	0.00	Paradox/San Juan Study Area
Price UT BLM Field Office	0.25	Uinta/Piceance Study Area
Rawlins WY BLM Field Office	0.25	
Richfield UT BLM Field Office	0.00	Paradox/San Juan Study Area
Richfield UT BLM Field Office	0.25	Uinta/Piceance Study Area
Rock Springs WY BLM Field Office	0.25	
Routt-Medicine Bow NF	0.25	
Salt Lake UT BLM Field Office	0.25	
Santa Fe NF	0.25	
South Dakota BLM Field Office	0.25	
St. George UT BLM Field Office	0.00	
Thunder Basin NG	0.25	
Uinta NF	0.25	
Uncompahgre CO BLM Field Office	0.50	Paradox/San Juan Study Area
Uncompahgre CO BLM Field Office	0.25	Uinta/Piceance Study Area
Vernal UT BLM Field Office	0.00	
White River CO BLM Field Office	0.25	
White River NF	0.25	

**Table A7-8 Extended Drilling Zones by Jurisdiction**

## Appendix 7 GIS Methodology

Figure A7-3 shows an example from the Uinta/Piceance Basin. Areas shown in red represent a 1/4-mile extended drilling zone removed from the NSO areas. Areas shown in beige represent the remaining NSO stipulations. Note that many small features are completely removed from the NSO theme by use of the EDZ. Similarly, linear NSO features less than 1/2 mile wide, such as trails, are removed as well.



*Figure A7-3 Removal of the Extended Drilling Zone from NSO Areas*

### Analytical Modeling of Federal Lands and Resources

The analytical goal of the EPCA inventory is to calculate the area of Federal lands (including non-Federal lands overlying federally owned oil and gas estate [split estate]) in each access category in the hierarchy and the volume of oil and gas resources underlying the Federal lands in each access category, while at the same time accounting for stipulation exceptions and the accessibility of the EDZ.

One of the primary goals for the development of the categorization was to achieve geographic independence for a given parcel of land subject to overlapping stipulations (hence, the use of the categorization hierarchy where that parcel of land would be subject to only one category). The following discussion illustrates the application of the land access categorization for an area of multiple stipulations from southern Wyoming near the Colorado state border (Greater Green River Study Area), where a raptor nest, sage grouse nest, and mule deer winter range define an access category. These types of stipulations are among the most common found in the study areas.

Figure A7-4 shows a selected point where the stipulations overlap and the resultant categorization is “Timing Limitation Stipulation (TLS) 6-9” according to the access categorization hierarchy. Figure A7-5 shows the land categorization before processing, but with the application of all stipulations in the area. Note that the core nest of the sage grouse stipulation (shown in blue), which cannot be occupied, is

considered "no surface occupancy" area (NSO). The remaining area is under various timing limitations (colored in shades of red) or under standard lease terms (in green).

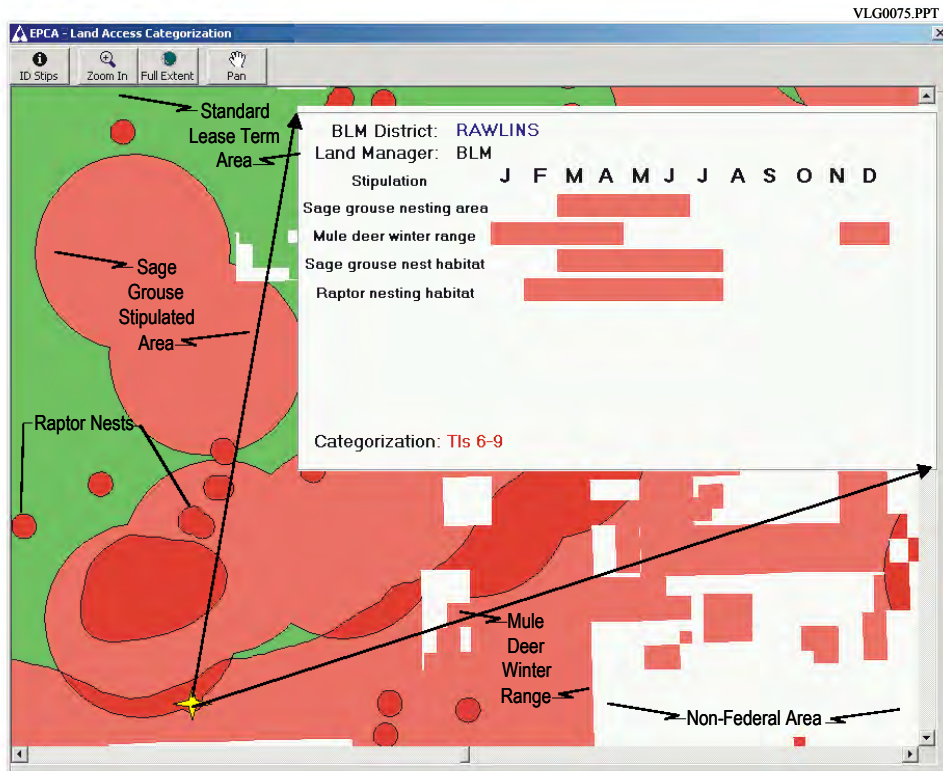


Figure A7-4 Display of Overlapping Timing Limitations (GGR Study Area)

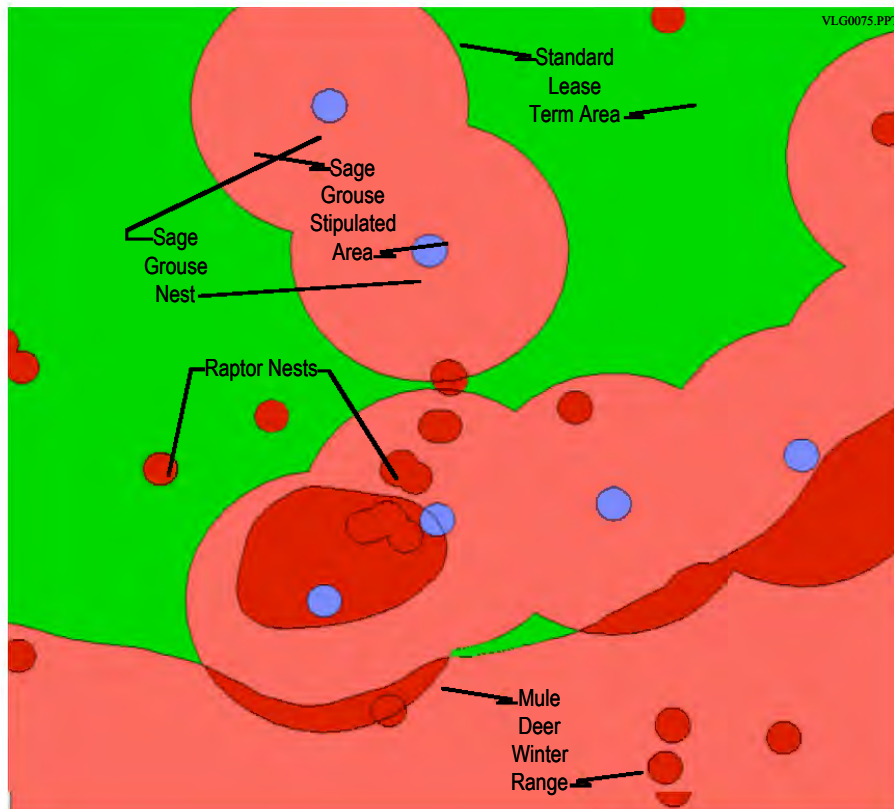
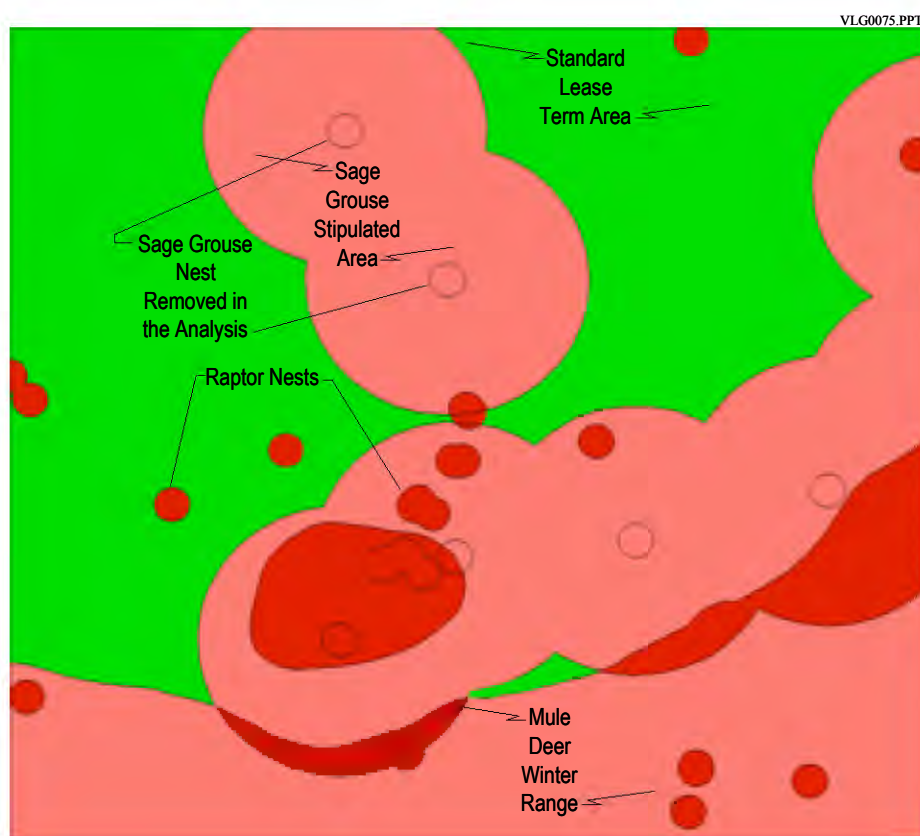


Figure A7-5 Display of Land Access Categorization (GGR Study Area)

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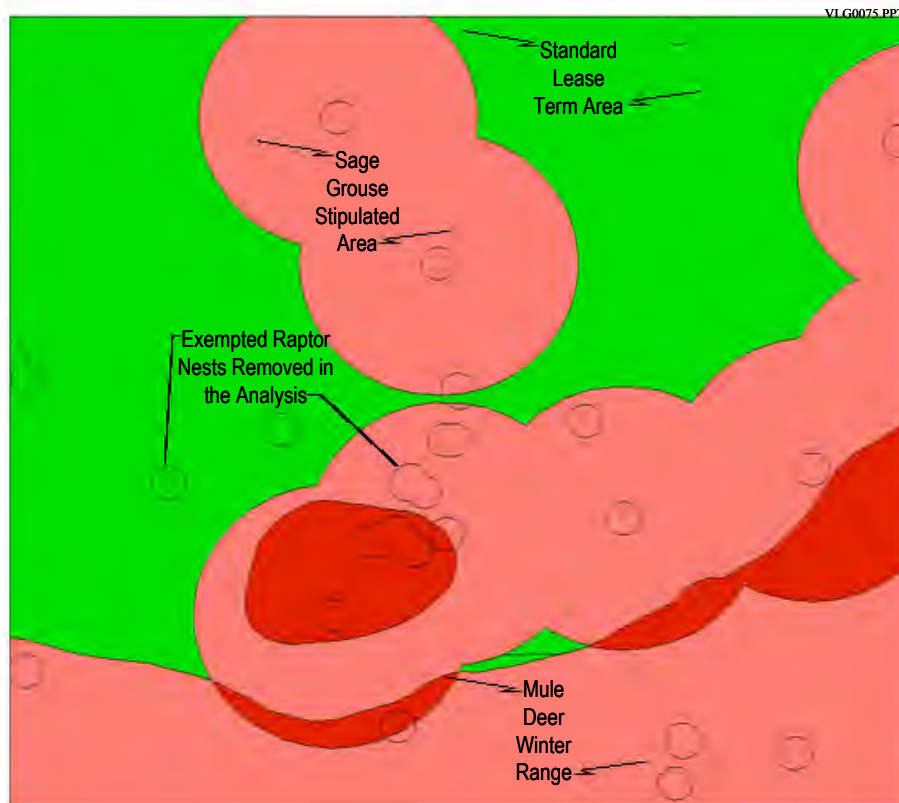
Next, Figure A7-6 shows the effect where the EDZ is applied to NSO areas. Note that use of the EDZ makes the sage grouse nest transparent to the categorization. Using a GIS-driven model developed for the project, all stipulations were similarly subjected to the categorization hierarchy and are presented in an interactive map, termed LACE (land access categorization, executable), accompanying this report.

Additionally, to account for stipulation exceptions in the analysis, the GIS-driven model determined the effects due to the presence or absence of the stipulations by selectively removing excepted stipulations in the computer. This is illustrated by Figure A7-7, which shows this for the example for the Greater Green River Study Area, where the raptor stipulation has been removed. Note that, in the absence of an excepted stipulation, the analysis defaults to the underlying stipulation or standard lease terms, as appropriate.



*Figure A7-6 Display of Land Access Categorization with Extended Drilling Zone Applied (GGR Study Area)*

If, for example, raptor stipulations are excepted 30 percent of the time, then, for an area represented by the raptor polygon (where raptor stipulations do not overlap other excepted stipulations), 30 percent from the contribution are represented by conditions where the raptor stipulation is not present and 70 percent (=1 minus 30 percent) of the contribution comes from the conditions represented where the raptor stipulation is present. The total is calculated accordingly for all combinations of the exception factors within a given office jurisdiction (see Table A7-8) or where combinations of these exceptions exist (see Table:A7-9).



**Figure A7-7** *Display of Land Access Categorization with Extended Drilling Zone Applied and with Raptor Stipulation Removed (GGR Study Area)*

Access categorization of the Federal lands and resources was determined in aggregate in the studies based upon discrete examination of individual GIS polygons using the following equation:

$$FLorRs = 3((1-EF) * FLorRs_{(EDZ)} + (EF * FLorRs_{(EDZ\ w/\ Excepted)}))$$

Where

- FLorRs = Federal Lands or Resources
- EF = Exception Factor (e.g., see Table 7.4.1.3b)
- FLorRs<sub>(EDZ)</sub> = FLorRs determined using the Extended Drilling Zone
- FLorRs<sub>(EDZ w/ Excepted)</sub> = FLorRs determined using the EDZ plus removal of stipulations for which exceptions are granted

This equation allocates Federal lands and resources to access categories in the analysis based on use of the extended drilling zone and depending upon the presence or absence of excepted stipulations. As the excepted stipulations are removed to estimate Federal lands and resources, the model is set so as to default to the underlying stipulation category in the hierarchy.

This process results in the generation of hundreds of thousands of individual GIS polygons for the study areas, each with unique Federal lands and resources access characteristics. These data are then summed and reported by access category and Federal management agency. For oil and gas resources,

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**GIS Methodology**

categorization is provided by specific resource type (Section 7.2.1).<sup>14</sup> By definition of their producibility, proved reserves are categorized as standard lease terms in the EPCA inventory.

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<sup>14</sup> An Excel spreadsheet showing the results for Federal lands and resources by BLM office jurisdiction for each study area in the EPCA inventory is provided on the CD-ROMs accompanying this report.

## APPENDIX 8

### LAND MANAGEMENT AND RESOURCE DOCUMENTS USED IN THE EPCA INVENTORY

Approved RMP for Public Lands Administered by the BLM Buffalo Field Office, 2000

Beaverhead National Forest EIS, 1996

Black Hills National Forest Land and RMP, 1991

Book Cliffs Proposed RMP/ Final Environmental Impact Statement (FEIS), 1984

Book Cliffs Record of Decision (ROD) & RPS, 1985

Bridger-Teton National Forest Plan

Bureau of Reclamation Special Stipulations, Billings Montana Office

Carson Nation Forest Plan, 1982

Cedar Beaver Garfield antimony Approved Resource Management Plan (ARMP)/ROD and RPS, 1986

Cibola National Forest Plan

Colorado State BLM Statewide Stipulations

Department of Energy Federal Lands Analysis Natural Gas Assessment, Southern Wyoming and Northwestern Colorado, 1999

Diamond Mtn Recreation Area (RA) ARMP/ROD, 1994

Diamond Mtn RA PRMP/FEIS, 1993

Farmington Oil and Gas Leasing Amendment, 1991

Final EIS for the Newcastle Resource Management Plan, 1999

Garnet RMP, 1986

Glenwood Springs Resource Area Plan Amendment, 1999

Grand Mesa/Uncompahgre/Gunnison National Forest Forest Plan, 1993

Grand Resource RMP, 1985

Grand Staircase Escalante National Monument Management Plan, 1999



**Appendix 8**  
**Land Management and Resource Documents**  
**Used in the EPCA Inventory**

Headwaters RMP, 1983

Helena National Forest Forest Plan, 1986

Henry Mt Management Framework Plan (MFP), 1982

Kemmerer RMP/ROD, 1986

Lewis & Clark National Forest Oil and Gas Leasing Final EIS, 1997

Lopez Project Utah State BLM Statewide Stipulations

Manti-La Sal Final EIS for Oil and Gas Leasing on Lands Administered by the Manti-La Sal National Forest, 1986

Manti-La Sal Final EIS for Oil and Gas Leasing on Lands Administered by the Manti-La Sal National Forest, 1986

Master Index of Utah BLM Land Use Plans & Amendments on CD, 2001

Miles City Oil and Gas Amendment, 1994

Miles City RMP, 1991

Montana State BLM Standard Stipulations

Northern Great Plains Final EIS

Paria Management Framework Plan, 1981

Parker Mountain MFP, 1982

Platte River RMP Revised & Updated Decisions, 2001

Rio Puerco RMP, 1992

ROD & Approved RMP for Public Lands Administered by the Newcastle Field Office, 2000

Routt National Forest Oil and Gas Leasing Analysis/FEIS, 1993

San Juan National Forest Forest Plan, 1983

San Juan RA ARMP/ROD, 1991

San Juan/San Miguel RMP 1991 Oil and Gas Amendment

San Rafael RA ARMP/ROD, 1991

Santa Fe National Forest Plan 1987, 1996 Amendment

Shoshone National Forest Final Oil and Gas Leasing EIS/ROD, 1992

St. George Office RMP, 1999

Vermillion Management Framework Plan, 1981

White River National Forest ROD

White River Resource Area RMP

Wyodak Coal Bed Methane Project final EIS, 2000

Wyodak drainage Coal Bed Methane EA, 2000

Wyoming St BLM Statewide Stipulations

Zion Management Framework Plan, 1981

## **APPENDIX 9**

**EPCA INVENTORY STIPULATIONS, (PARADOX/SAN JUAN,  
UINTA/PICEANCE, GREATER GREEN RIVER, POWDER RIVER AND,  
MONTANA THRUST BELT STUDY AREAS)**

Albuquerque, NM BLM  
Rio Puerco RMP

## TABLE 8

## RIO PUERCO OIL AND GAS STIPULATIONS

Rio Puerco 1

In order to protect important seasonal wildlife habitat, exploration, drilling and other development activity will be allowed only during the period from July 2 to January 31. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically authorized in writing by the authorized officer of the Bureau of Land Management. Lands within the leased area to which this stipulation applies are described as follows: (description would be attached to lease)

Rio Puerco 2

In order to protect important seasonal wildlife habitat, exploration, drilling and other development activity will be allowed only during the period from May 15 to November 15. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically authorized in writing by the authorized officer of the Bureau of Land Management. Lands within the leased area to which this stipulation applies are described as follows: (description would be attached to lease)

Rio Puerco 3

No occupancy or other activity on the surface of the following described lands is allowed in order to protect cultural resources and aviation facilities: (description would be attached to lease)

Rio Puerco 4

The lessee is given notice that all or portions of the lease area contain special values, are needed for special purposes, or require special attention to prevent damage to surface resources. Any surface use or occupancy within such areas will be strictly controlled. Use or occupancy will be authorized only when the lessee/operator demonstrates that the area is essential for operations and when the lessee/operator submits a surface use and operations plan which is satisfactory to the Bureau of Land Management for the protection of these special values and existing or planned uses. Appropriate modifications to the imposed restrictions will be made for the maintenance and operations of producing oil and gas wells.

After the Bureau of Land Management has been advised of the proposed surface use or occupancy on these lands, and on request of the lessee/operator, the Bureau of Land Management will furnish further data on such areas.

Reason for Restriction: Presence of Southern Union Gas' Las Milpas gas storage facility.

Duration of Restriction: Year-round.

Prior to acceptance of this stipulation the prospective lessee is encouraged to contact the Bureau of Land Management for further information regarding the restrictive nature of this stipulation.

Rio Puerco 5 [CODE RP5]

The lessee is given notice that all or portions of the lease area contain special values, are needed for special purposes, or require special attention to prevent damage to surface resources. Any surface use or occupancy within such areas will be strictly controlled. Use or occupancy will be authorized only when the lessee/operator demonstrates that the area is essential for operations and when the lessee/operator submits a surface use and operations plan which is satisfactory to the Bureau of Land Management for the protection of these special values and existing or planned uses. Appropriate modifications to the imposed restrictions will be made for the maintenance and operations of producing oil and gas wells.

After the Bureau of Land Management has been advised of the proposed surface use or occupancy on these lands, and on request of the lessee/operator, the Bureau of Land Management will furnish further data on such areas.

Reason for Restriction: Designated Area of Critical Environmental Concern.

Duration of Restriction: Year-round.

Prior to acceptance of this stipulation the prospective lessee is encouraged to contact the Bureau of Land Management for further information regarding the restrictive nature of this stipulation.

TABLE 8 (Continued)

Rio Puerco 6

The lessee is given notice that all or portions of the lease area contain special values, are needed for special purposes, or require special attention to prevent damage to surface resources. Any surface use or occupancy within such areas will be strictly controlled. Use or occupancy will be authorized only when the lessee/operator demonstrates that the area is essential for operations and when the lessee/operator submits a surface use and operations plan which is satisfactory to the Bureau of Land Management for the protection of these special values and existing or planned uses. Appropriate modifications to the imposed restrictions will be made for the maintenance and operations of producing oil and gas wells.

After the Bureau of Land Management has been advised of the proposed surface use or occupancy on these lands, and on request of the lessee/operator, the Bureau of Land Management will furnish further data on such areas.

Reason for Restriction: Potential or known cultural resource site, eligible for inclusion in the National Register of Historic Places.

Duration of Restriction: Year-round.

Prior to acceptance of this stipulation the prospective lessee is encouraged to contact the Bureau of Land Management for further information regarding the restrictive nature of this stipulation.

New Mexico 7

By accepting this lease, the lessee acknowledges that the lands contained in this lease are being inventoried or evaluated for their wilderness potential by the Bureau of Land Management (BLM) under Section 603 of the Federal Land Policy and Management Act of 1976 90 Stat. 2743 (43 USC Sec. 1782), and that exploration or production activities which are not in conformity with Section 603 may never be permitted. Expenditures in leases on which exploration drilling or production are not allowed will create no additional rights in the lease, and such leases will expire in accordance with law.

Activities will be permitted under the lease so long as BLM determines they will not impair wilderness suitability. This will be the case either until the BLM wilderness inventory process has resulted in a final wilderness inventory decision that an area lacks wilderness characteristics, or in the case of a Wilderness Study Area, until Congress has decided not to designate the lands included within this lease Wilderness. Activities will be considered nonimpairing if the BLM determines that they meet each of the following three criteria:

(a) It is temporary. This means that the use or activity may continue until the time when it must be terminated in order to meet the reclamation requirement of paragraphs (b) and (c) below. A temporary use that creates no new surface disturbance may continue unless Congress designates the area as Wilderness, so long as it can easily and immediately be terminated at that time, if necessary to management of the area as Wilderness.

(b) Any temporary impacts caused by the activity must, at a minimum, be capable of being reclaimed to a condition of being substantially unnoticeable in the Wilderness Study Area (or Inventory Unit) as a whole by the time the Secretary of the Interior is scheduled to send his recommendations on that area to the President, and the operator will be required to reclaim the impacts to that standard by that date. If the wilderness study is postponed, the reclamation deadline will be changed. A full schedule of wilderness studies will be developed by the Department upon completion of the intensive wilderness inventory. In the meantime, in areas not yet scheduled for wilderness, the reclamation will be scheduled for completion within 4 years after approval of the activity. (Obviously, if and when the Interim Management Policy ceases to apply to an Inventory Unit dropped from wilderness review following a final wilderness inventory decision of the BLM State Director, the reclamation deadline previously specified will cease to apply.) The Secretary's schedule for transmitting his recommendations to the President will not be changed as a result of any unexpected inability to complete the reclamation by the specified date, and such inability will not constrain the Secretary's recommendations with respect to the area's suitability or unsuitability for preservation as wilderness.

The reclamation will, to the extent practicable, be done while the activity is in progress. Reclamation will include the complete recontouring of all cuts and fills to blend with the natural topography, the replacement of topsoil, and the restoration of plant cover at least to the point where natural succession is occurring. Plant cover will be restored by means of reseeded or replanting, using species previously occurring in the area. If necessary, irrigation will be required. The reclamation schedules will be based on conservation assumptions with regard to growing conditions, so as to ensure that the reclamation will be complete, and the impacts will be substantially unnoticeable in the area as a whole, by the time the Secretary is scheduled to send his recommendations to the President. ("Substantially unnoticeable" is defined in Appendix F of the Interim Management Policy and Guidelines for Lands Under Wilderness Review.)

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(c) When the activity is terminated, and after any needed reclamation is complete, the area's wilderness values must not have been degraded so far, compared with the area's values for other purposes, as to significantly constrain the Secretary's recommendation with respect to the area's suitability or nonsuitability for preservation as Wilderness. The wilderness values to be considered are those mentioned in Section 2(c) of The Wilderness Act, including naturalness, outstanding opportunities for solitude or for primitive and unconfined recreation and ecological, geological or other features of scientific, educational, scenic, or historical value. If all or any part of the area included within the leasehold estate is formally designated by Congress as Wilderness, exploration and development operations taking place or to take place on the part of the lease will remain subject to the requirements of this stipulation, except as modified by the Act of Congress designating the land as Wilderness. If Congress does not specify in such act how existing leases like this one will be managed, then the provisions of The Wilderness Act of 1964 will apply, as implemented by rules and regulations promulgated by the Department of the Interior.

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**TABLE 20**  
**SPECIAL MANAGEMENT AREAS\***

Area Number	Area Name	Existing Recognition	Total Surface Acres	Management Goals	Planned Actions	Support Needs
1	Torrejon Fossil Fauna	Listed as type locality by the American Museum Novitates	2,981	Designate as ACEC** to protect Torrejon Fauna for scientific study	Activity plan***  Limited motorized vehicle use to existing roads and trails***	
2	Pelon Waterahed	Part of Rio Puerco Hydrology Study	858	Develop as SMA to protect Rio Puerco Hydrology Study	Activity plan  Withdraw minerals***  No surface disturbance***  Limit motorized vehicle use to exiting roads and trails Close BLM Inventory road 21-4-12 No surface occupancy (fluid minerals)***, ****	
3	Historic Homesteads	None	16	Develop as SMA for recreational and cultural values	Activity plan	
4	Canon Jarido	None	1,803	Develop as SMA for recreational, scenic, and cultural values, and wildlife habitat	Activity plan  Limit motorized vehicle use to existing roads and trails  No surface disturbance	
5	Jones Canyon	None	640	Designate as ACEC to protect cultural, recreational, and scenic values, and riparian habitat	Activity plan  No surface disturbance  Acquire non-public lands  Withdraw locatable minerals  Limit motorized vehicle use to existing roads and trails  Allow no surface occupancy (fluid minerals)****	Survey  ATROW  Land Acquisition

[CODE RP9]

[CODE RP10]

[CODE RP11]



Area Number	Area Name	Existing Recognition	Total Surface Acres	Management Goals	Planned Actions	Support Needs
[CODE RP12]	Headcut Pre-historic Community	None	2,274	Develop as SMA for cultural values	Activity plan Limit motorized vehicle use to existing roads and trails	Survey ATROW Land Acquisition
				Acquire non-public lands		
[CODE RP13]	7 San Luis Mesa Raptor Area	Portions are part of Rio Puerco Hydrology Study  Portions are part of La Lena Wilderness Study Area	10,447	Designate as ACEC to protect raptor nesting habitat and Rio Puerco Hydrology Study (Empedrado Watershed)	Activity plan  No surface disturbing activities Feb. 1-July 1  No surface disturbance in watershed area  Limit motorized vehicle use to existing roads and trails  Withdraw all minerals in Empedrado Watershed Study Area  No surface occupancy (fluid minerals) Feb. 1-July 1****	
[CODE RP14]	8 Azabache Station	Not brought forward for further consideration for leasing due to multiple-use considerations—Chaco MFP	80	Develop as SMA for recreational and cultural values  Withdraw locatable and salcable minerals  Closed to motorized vehicle use***	Activity plan  Allow no surface occupancy (fluid minerals)****	
	9 Cabezon Peak	Cabezon Wilderness Study Area	5,765	Designate as ACEC to protect recreational, scenic, and socio-cultural values, and rare plant habitat	Activity plan  No surface disturbance  Close to motorized vehicle use  Acquire non-public lands	Survey Land Acquisition

Area Number	Area Name	Existing Recognition	Total Surface Acres	Management Goals	Planned Actions	Support Needs
10	Ignacio Chavez	Ignacio Chavez and Chamisa Wilderness Study Areas	43,182	Develop as SMA for recreational and scenic values, wildlife habitat, woodland products, and ponderosa pine regeneration	<p>Activity plan</p> <p>Emergency Road Closure BLM 1103</p> <p>Fuelwood harvest will be allowed in portions of the SMA if no Wilderness designation occurs</p> <p>The area will be managed for recreation experience</p> <p>No surface disturbance</p> <p>Limit motorized vehicle use to existing roads and trails</p> <p>Standard fluid mineral lease stipulations will be determined during activity planning</p> <p>Close certain roads</p> <p>Acquire non-public lands</p>	<p>Survey</p> <p>Land Acquisition</p>
11	Big Bend Mesa	National Historic Landmark	320	Develop as SMA for cultural values	<p>Activity plan</p> <p>Allow no surface occupancy (fluid minerals)****</p> <p>Limit motorized vehicle use to existing roads and trails</p> <p>Withdraw locatable and salcable minerals</p>	<p>Survey</p> <p>ATROW</p>

[CODE RP17]

Area Number	Area Name	Existing Recognition	Total Surface Acres	Management Goals	Planned Actions	Support Needs
[CODE RP18]	12 Canon Tapia	None	1,093	Designate as ACEC to protect cultural values	Activity plan Acquire non-public lands Allow no surface occupancy (fluid minerals)****	Survey ATROW Land Acquisition
[CODE RP19]	13 Guadalupe Ruin and Community	State and National Registers of Historic Places	487	Develop as SMA for cultural values	Activity plan Close to motorized vehicle use within 40 acre fenced area; limit remainder to existing roads and trails Withdraw all minerals****	
[CODE RP20]	14 Elk Springs	New Mexico Comprehensive Wildlife Plan critical big-game range  Juana Lopez stratigraphic member is recognized by USGS as a reference section	10,300	Designate as ACEC to protect elk and deer winter range, alleviate big game depredation on private lands, and protect recreational and scenic values  Designate 40 acres as a Research Natural Area to protect paleontological values (Juana Lopez member)	Activity plan Acquire non-public lands Limit motorized vehicle use to existing roads and trails with seasonal restrictions Allow no surface disturbance No surface disturbing activities associated with fluid mineral development Nov. 16-May 14**** Allow no surface disturbance in Research Natural Area Withdraw all minerals on Research Natural Area No surface occupancy (fluid minerals) in Research Natural Area****	Survey ATROW Land Acquisition

Area Number	Area Name	Existing Recognition	Total Surface Acres	Management Goals	Planned Actions	Support Needs
15	Tent Rocks	None	11,743	Develop as SMA to protect wildlife habitat  Designate a portion as ACEC to protect geological, recreational and scenic values	Activity plan  Develop agreements with private landowners***  Limit motorized vehicle use to existing roads and trails  No surface disturbance  Develop water and rehabilitate grassland parks	
16	Ojito	Portions are part of Ojito Wilderness Study Area  Portions are part of Rio Puerco Hydrology Study	13,657	Designate as ACEC to reduce geological hazard (Las Milpas Gas Storage) and to protect geological, paleontological, cultural, recreational, and scenic values, wildlife and rare plant habitat, and Rio Puerco Hydrology Study (Querencia Watershed)	Activity plans  Acquire non-public land  No surface disturbance  Limit motorized vehicle use to existing roads and trails  Close certain roads  Close to motorized vehicle use in watershed area and Las Milpas pipeline and well areas  Withdraw locatable minerals in the Las Milpas Gas Storage Area Withdraw all minerals in the Querencia Watershed Study Area  No surface occupancy (fluid minerals) in Querencia Watershed Study Area****	Survey  Land Acquisition
17	Ball Ranch	The Nature Conservancy is currently negotiating a conservation easement on the Ball private land	1,480	Designate as ACEC/ Research Natural Area to protect rare plant habitat and paleontological values	Activity plan  Limit motorized vehicle use to existing roads and trails  No surface disturbance  Withdraw all minerals	

Area Number	Area Name	Existing Recognition	Total Surface Acres	Management Goals	Planned Actions	Support Needs
18	Pronoun Cave Complex	None	1,194	Designate as ACEC/ Research Natural Area to protect paleontological, recreational and cultural values	Activity plan  Develop agreement with New Mexico Museum of Natural History  Limit motorized vehicle use to existing roads	
19	Continental Divide Trail	Part of National Trail System	715	Manage as a National Trail	Prepare plan amendment/EA El Malpais NCA GMP proposed alternate route	
20	1870's Wagon Road Trail	None	630	Develop as SMA for recreational values	Activity plan  Develop agreement with State of New Mexico	
21	El Malpais	National Natural Landmark, Outstanding Natural Area. Natural Environmental Area, Wilderness Instant Study Area, Sand Canyon, Rimrock, Little Rimrock and Pinyon Wilderness Study Areas*****, Candelaria Ruin and Community Chaco Outlier Archeological Protection Site	262,600	Develop as SMA for cultural, recreational, and scenic values, and wildlife habitat  Prepared El Malpais NCA General Management Plan to direct the management of the NCA	Activity plans  Limit motorized vehicle use to existing roads and trails  Acquire mineral estate  Implement El Malpais NCA GMP	Mineral Appraisal  Land Acquisition
22	Petaca Pinta	Portions are part of Petaca Pinta Wilderness Study Area	13,789	Develop as SMA for recreational and scenic values, and wildlife habitat	Activity plan  Limit motorized vehicle use to existing roads and trails  Acquire mineral estate	
23	Bluewater Canyon	Designated as ACEC by Divide MFP	89	Manage as SMA/ACEC for wildlife, visual, and recreational values	Activity plan****  Close to motorized vehicle use****  Close to grazing below rim****  Allow no surface occupancy****  Allow no surface disturbance****	Land Acquisition

Acquire non-public lands

# Ashley National Forest

**STIPULATION FOR LANDS OF THE NATIONAL FOREST SYSTEM  
UNDER JURISDICTION OF  
DEPARTMENT OF AGRICULTURE**

The permittee/lessee must comply with all the rules and regulations of the Secretary of Agriculture set forth at Title 36, Chapter II, of the Code of Federal Regulations governing the use and management of the National Forest System (NFS) when not inconsistent with the rights granted by the Secretary of Interior in the permit. The Secretary of Agriculture's rules and regulations must be complied with for (1) all use and occupancy of the NFS prior to approval of an exploration plan by the Secretary of the Interior, (2) uses of all existing improvements, such as forest development roads, within and outside the area permitted by the Secretary of the Interior, and (3) use and occupancy of the NFS not authorized by an exploration plan approved by the Secretary of the Interior.

All matters related to this stipulation are to be addressed to:

Forest Supervisor  
Ashley National Forest  
355 N. Vernal Avenue  
Vernal, UT 84078

who is the authorized representative of the Secretary of Agriculture.

**NOTICE**

**CULTURAL AND PALEONTOLOGICAL RESOURCES** - The FS is responsible for assuring that the leased lands are examined to determine if cultural resources are present and to specify mitigation measures. Prior to undertaking any surface-disturbing activities on the lands covered by this lease, the lessee or operator, unless notified to the contrary by the FS, shall:

1. Contact the FS to determine if a site specific cultural resource inventory is required. If a survey is required, then:
2. Engage the services of a cultural resource specialist acceptable to the FS to conduct a cultural resource inventory of the area of proposed surface disturbance. The operator may elect to inventory an area larger than the area of proposed disturbance to cover possible site relocation which may result from environmental or other considerations. An acceptable inventory report is to be submitted to the FS for review and approval at the time a surface disturbing plan of operation is submitted.
3. Implement mitigation measures required by the FS and BLM to preserve or avoid destruction of cultural resource values. Mitigation may include relocation of proposed facilities, testing, salvage, and recordation or other protective measures. All costs of the inventory and mitigation will be borne by the lessee or operator, and all data and materials salvaged will remain under the jurisdiction of the U.S. Government as appropriate.

The lessee or operator shall immediately bring to the attention of the FS and BLM any cultural or paleontological resources or any other objects of scientific interest discovered as a result of surface operations under this lease, and shall leave such discoveries intact until directed to proceed by FS and BLM.

**ENDANGERED OR THREATENED SPECIES** - The FS is responsible for assuring that the leased land is examined prior to undertaking any surface-disturbing activities to determine effects upon any plant or animal species listed or proposed for listing as endangered or threatened, or their habitats. The findings of this examination may result in some restrictions to the operator's plans or even disallow use and occupancy that would be in violation of the Endangered Species Act of 1973 by detrimentally affecting endangered or threatened species or their habitats.

The lessee/operator may, unless notified by the FS that the examination is not necessary, conduct the examination on the leased lands at his discretion and cost. This examination must be done by or under the supervision of a qualified resource specialist approved by the FS. An acceptable report must be provided to the FS identifying the anticipated effects of a proposed action on endangered or threatened species or their habitats.

**FLOODPLAIN AND WETLAND** - The lessee is hereby notified that this lease may contain land within a riparian or wetland ecosystem.

**[CODE AS\_A3]**

All activities within this area may be precluded or highly restricted in order to comply with Executive Order 11988 - Floodplain Management and Executive Order 11990 - Protection of Wetlands, in order to preserve and restore or enhance the natural and beneficial values served by floodplains and wetlands.

Occupancy and use of lands within riparian or wetland areas, as proposed in a Surface Use Plan of Operations, will be considered in an environmental analysis and mitigation measures deemed necessary to protect these areas identified. These areas are to be avoided to the extent possible, or special measures such as road design, well pad size and location or directional drilling, may be made part of the permit authorizing the activity.

NO SURFACE OCCUPANCY STIPULATION

No surface occupancy or use is allowed on the lands described below (legal subdivision or other description).

- a. Lands with steep slopes exceeding 35% on lands within:

T. X X., R. XX X. Meridian  
Section XX:

- b. Lands with geologic hazards or unstable soils:

T. X X., R. XX X. Meridian  
Section XX: Portions of

- c. Riparian areas > 40 acres on lands within:

T. X X., X. XX X. Meridian  
Section XX: Portions of

- d. Wetland areas > 40 acres on lands within:

T. X X., X. XX X. Meridian  
Section XX: Portions of

- e. Lands within Research Natural Areas (RNA):

T. X X., X. XX X. Meridian  
Section XX: Portions of

- f. Lands within developed recreation sites and trailheads:

T. X X., X. XX X. Meridian  
Section XX: Portions of

For the purpose of:

- a. to preclude construction of well sites and related facilities such as tank batteries on slopes over 35% which would involve relatively large cut and fill slopes and would be difficult to rehabilitate; Western Uinta Basin Oil and Gas EIS (page A-12).
- b. to preclude surface disturbing activities on areas that have a high erosion/stability hazard and would be difficult to reclaim; Western Uinta Basin Oil and Gas EIS (page A-12).
- c. to require that activities are located or designed to minimize surface disturbing activities and protect riparian areas; Western Uinta Basin Oil and Gas EIS (page A-13).
- d. to require that activities are located or designed to minimize surface disturbing activities and protect jurisdictional wetlands relative to Executive Order 11990; Western Uinta Basin Oil and Gas EIS Record of Decision (page 7).
- e. to preclude surface disturbance within the area and to maintain its near natural conditions for future research use; Western Uinta Basin Oil and Gas EIS (page A-20).
- f. to preclude surface occupancy and new surface disturbing activities within developed recreation sites; Western Uinta Basin Oil and Gas EIS Record of Decision (page 6).

Any changes to this stipulation will be made in accordance with the land use plan, the Oil and Gas Leasing EIS, and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)



CONTROLLED SURFACE USE STIPULATION

Surface occupancy or use is subject to the following special operating constraints.

- a. Sensitive plants/wildlife species: A survey will be conducted prior to surface disturbing activities to determine the possible presence of any sensitive plants/wild life species and operations will be designed and/or located so as not to adversely affect the viability of the species.
- b. Semi-primitive non-motorized/roadless areas
- c. Retention and partial retention Visual Quality Objective

On the lands described below:

- a. Areas designated as having sensitive plants or wildlife within:  
Entire lease
- b. Semi-primitive non-motorized/roadless areas on lands within:  
T. X X., R. XX X. Meridian  
Section XX: Portions of
- c. Areas designated a visual quality objective of retention or partial retention on lands within:  
T. X X., R. XX X. Meridian  
Section XX: Portions of

For the purpose of:

- a. to insure that proposed activities do not adversely affect the viability of any sensitive plant/wildlife species; Western Uinta Basin Oil and Gas EIS (page A-19, A-20).
- b. to minimize the effects of activities within semi-primitive non-motorized/roadless areas by requiring that activities be located, designed, and reclaimed in a manner that would minimize effects to the semi-primitive/roadless character of the land; Western Uinta Basin Oil and Gas EIS (page A-21).
- c. to ensure that proposed activities within this area be designed or located in such a manner as to meet the visual quality objective of retention or partial retention within one year; Western Uinta Oil and Gas EIS (page A-22).

Any changes to this stipulation will be made in accordance with the land use plan, the Oil and Gas EIS, and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

R4-FS-2820-16 (8/92)

TIMING LIMITATION STIPULATION

No surface use is allowed during the following time period(s). This stipulation does not apply to operation and maintenance of production facilities.

- a. April 1 to May 31 (Sage grouse habitat)  
[CODE AS\_A13]
- b. November 15 to April 30 (Elk winter and yearlong range)  
[CODE AS\_A14]
- c. November 15 to April 30 (Deer winter range)
- d. May 1 to June 30 (Elk calving areas)

On the lands described below:

- a. T.XX, X. XX X. Meridian  
Section XX: portions of
- b. T.XX, X. XX X. Meridian  
Section XX: portions of
- c. T.XX, X. XX X. Meridian  
Section XX: portions of
- d. T.XX, X. XX X. Meridian  
Section XX: portions of

For the purpose of (reasons):

- a. to preclude initiation of new surface disturbance within critical sage grouse habitat which could interfere with breeding and nesting activities during the reproductive period; Western Uinta Basin Oil and Gas EIS (page A-14).
- b. to preclude initiation of new surface disturbing activities within critical elk winter and yearlong range which would cause increased stress and/or displacement of animals during the critical time period; Western Uinta Basin Oil and Gas EIS (pages A-15 and A-19).
- c. to preclude the commencement of surface disturbing activities within the deer winter range which could cause increased stress and/or displacement of animals during the critical time period; Western Uinta Basin Oil and Gas EIS (page A-15).
- d. to preclude the commencement of surface disturbing activities within the elk calving area which could cause increased stress and/or displacement during the critical time period; Western Uinta Basin Oil and Gas EIS (page A-18).

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

# Beaverhead National Forest

## STIPULATIONS, WAIVERS, EXCEPTIONS, MODIFICATIONS

### STIPULATIONS

#### NO SURFACE OCCUPANCY STIPULATION GUIDANCE

The No Surface Occupancy (NSO) stipulation is intended for use only when less-restrictive stipulations are determined insufficient to adequately protect the public interest. The land use plan/NEPA document prepared for leasing must show less restrictive stipulations were considered and determined by the authorized officer to be insufficient. The planning/NEPA record must also show consideration was given to a no-lease alternative when applying an NSO stipulation. ***An NSO stipulation is not needed if the desired protection would not require relocation of proposed operations by more than 200 meters (43 CFR 3101.1-2) (as any facility can be moved up to 200 meters under Standard Terms).***

The legal subdivision, distance, location, or geographic feature, and resource value of concern must be identified in the stipulation and be tied to a land use plan and/or NEPA document. Land description may be stated as: the "Entire Lease"; distance from resources and facilities such as rivers, trails, campgrounds, etc.; legal description; geographic feature such as a 100-year floodplain, municipal watershed, percent of slope, etc.; special areas with identified boundaries (area of critical environmental concern, wild and scenic river, etc.); or other description that specifies the boundaries of the lands affected. The estimated percent of the total lease area affected by the restriction must be given if no legal or geographic description of the location of the restriction is given. In other cases the estimated percent is optional. (See Example NSO).

Land use plans and/or NEPA documents should identify the specific conditions for providing waivers, exceptions, or modifications to lease stipulations. Waivers, exceptions, or modifications must be supported by appropriate environmental analysis and documentation, and subject to the same test used to initially justify the imposition of this stipulation. Language may be added to the NSO stipulation form to provide the lessee with information or circumstances under which waivers, exceptions, or modifications would be considered. A waiver, exception, or modification may be approved if the record shows that circumstances or relative resource values have changed or that the lessee can demonstrate that operations can be conducted without causing unacceptable impacts, and that less restrictive stipulations will protect the public interest. Waivers, exceptions or modification can only be granted by the authorized officer. If the waiver, exception, or modification is inconsistent with the land use planning document, that document must be amended as necessary, or the change disallowed.

If the authorized officer determines, prior to lease issuance, that a stipulation involves an issue of major concern, modification or waiver of the stipulation will be subject to public review (43 CFR 3101.1-4). The land use plan also may identify other cases when a public review is required for a waiver, exception, or modification. In such cases, wording such as the following should be added to the stipulation form to inform the lessee of the required public review: "A 30-day public notice period is required prior to modification or waiver of this stipulation."

**EXAMPLE NSO**

Parcel No.

Serial No. \_\_\_\_\_

**NO SURFACE OCCUPANCY STIPULATION**

No surface occupancy or use is allowed on the lands described below (legal subdivision or other description).

1. T 148 N, R 102 W, 5th PM  
Section 25: Portions of E2NE, NESE
  
2. T 148 N, R 102 W, 5th PM  
Section 26: Portions of W2

For the purpose of:

1. To maintain the 1/4 mile no disturbance zone around bald eagle nest (\_\_\_\_\_ Forest Plan, page \_\_\_\_).
  
2. To meet the goals and management standards for riparian areas (Management Area \_\_\_\_\_ Forest Plan, page \_\_\_\_); to provide healthy, self-perpetuating plant and water communities that will have optimum diversity and density of understory and overstory vegetation.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

## TIMING LIMITATION STIPULATION GUIDANCE

The Timing Limitation Stipulation (often called seasonal) prohibits fluid mineral exploration and development activities for time periods less than yearlong. When using this stipulation, assure date(s) and location(s) are as specific as possible. *A timing limitation stipulation is not necessary if the time limitation involves the prohibition of new surface-disturbing operations for periods of less than 60 days* (43 CFR 3101.1-2) (because Standard Terms allow for limitations up to 60 days).

The land use plan/NEPA document prepared for leasing must show that less restrictive stipulations were considered to be insufficient. The environmental effects of exploration, development, and production activities may differ markedly from each in scope and intensity. If the effects of reasonably foreseeable production activities necessitate timing limitation requirements, this need should be clearly documented in the record. The record also should show less stringent, project-specific mitigation may be insufficient. In such cases the stipulation language should be modified on a case-by-case basis to clearly document that the timing limitation applies to all stages of activity.

The legal subdivision, distance, location, or geographic feature, and resource value of concern must be identified in the stipulation and be tied to a land use planning and/or NEPA document. The timing limitations for separate purposes may be written on separate forms or as combined stipulation (see Example Timing Limitation). During the review and decision-making process for Application for Permit to Drill (APD) and Sundry Notices, the date(s) and locations(s) should be refined based on current information.

Land use plans and/or NEPA documents should identify the specific conditions for providing waivers, exceptions, or modifications to lease stipulations. Waivers, exceptions, or modifications of this stipulation, such as continuing drilling operations into a restricted time period, must be supported with appropriate environmental analysis and documentation, and would be subject to the same test used to initially justify the imposition of this stipulation. Language may be added to the stipulation form to provide the lessee with information or circumstances under which waiver, exception, or modification would be considered. The need for one-time, case-by-case exceptions of timing limitation stipulation may arise from complications or emergencies during the drilling program. The need for timely review and decision making is great in such cases. For this reason, it is desirable that land use plans/NEPA documents clarify what review procedures and other requirements, if any, would apply in such cases.

A waiver, exception, or modification may be approved if the record shows circumstances or relative resource values have changed or that the lessee can demonstrate operations can be conducted without causing unacceptable impacts, and that less restrictive stipulations would protect the public interest. Waivers, exceptions or modifications can only be granted by the authorized officer. If the waiver, exception or modification is inconsistent with the land use planning document, and that document does not disclose the conditions under which such changes would be allowed, the plan or NEPA document must be amended as necessary, or the change disallowed.

If the authorized officer determines, prior to lease issuance, a stipulation involves an issue of major concern, modification or waiver of the stipulation would be subject to public review (e.g., 43 CFR 3101.1-4). The land use plan also may identify other cases when a public review is required for waiver, exception, or modification. In such cases, wording such as the following should be added to the stipulation form to inform the lessee of the required public review: "A 30-day public notice period is required prior to modification or waiver of this stipulation."

**EXAMPLE Timing Limitation**

Parcel No.

Serial No. \_\_\_\_\_

**TIMING LIMITATION STIPULATION**

No surface use is allowed during the following time period(s). This stipulation does not apply to operation and maintenance of production facilities.

1. February 15 to May 1 (inactive nests)  
February 15 to July 15 (active nests)
2. April 15 to June 30

On the lands described below:

1. T 148 N, R 102 W, 5th PM  
Section 25: Portions of N2NE, SWNE, S2SW, SE
2. T 3 N, R 15 E, PMM  
Section 2: All

For the purpose of:

1. Minimizing disturbance of the lands within 1/2 mile of the bald eagle nests during the critical nesting season (\_\_\_\_\_ Forest Plan, page \_\_\_\_).
2. Protecting elk spring calving range from disturbance during the spring use season, and to facilitate long-term maintenance of wildlife populations (\_\_\_\_\_ Forest Plan, page \_\_\_\_ ) and (EIS, page \_\_\_\_).

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

## **CONTROLLED SURFACE USE STIPULATION GUIDANCE**

The Controlled Surface Use (CSU) stipulation is intended to be used when fluid mineral occupancy and use are generally allowed on all or portions of the lease area year-round, but because of special values, or resource concerns, lease activities must be strictly controlled. This stipulation replaces stipulations commonly referred to as Limited Surface Use stipulations. The CSU stipulation is used to identify constraints on surface use or operations that may otherwise exceed the mitigation provided by Section 6 of the standard lease terms and the regulations and operating orders. The CSU stipulation is less restrictive than the NSO (No Surface Occupancy) or Timing Limitation stipulations, which prohibit all occupancy and use on all or portions of a lease for all or portions of a year. The CSU stipulation should not be used in lieu of an NSO or Timing Limitation stipulation. The use of this stipulation should be limited to areas where restrictions or controls are necessary for specific types of activities rather than all activity.

The stipulation should explicitly describe the activity that is to be restricted or controlled or the operation constraints required, and must identify the applicable area and the reason for the requirement. The record must show less restrictive stipulations were considered and determined to be insufficient. The legal subdivision, distance, location, or geographic feature, and resource value of concern must be identified in the stipulation and be tied to a land use plan and/or NEPA document. (See Example CSU)

Land use plans and/or NEPA documents should identify the specific conditions providing waivers, exceptions, or modifications to lease stipulations. Waivers, exceptions, or modifications of this stipulation must be supported with appropriate environmental analysis and documentation, and will be subject to the same test used to initially justify the imposition of this stipulation. Language may be added to the stipulation form to provide the lessee with information or circumstances under which waiver, exception, or modification would be considered. A waiver, exception, or modification may be approved if the record shows circumstances or relative resource value have changed or that the lessee can demonstrate operations can be conducted without causing unacceptable impact, and that less restrictive stipulations would protect the public interest. Waivers, exceptions, or modifications can only be granted by the authorized officer. If the waiver, exception, or modification is inconsistent with the land use planning document, that document must be amended as necessary or the change disallowed.

If the authorized officer determines, prior to lease issuance, that a stipulation involves an issue of major concern, modification or waiver of the stipulation would be subject to public review (e.g., 43 CFR 3101.1-4). The land use plan also may identify other cases when a public review is required for waiver, exception, or modification. In such cases, wording such as the following should be added to the stipulation form to inform the lessee of the required public review: "A 30-day public notice period is required prior to modification or waiver of this stipulation."



**EXAMPLE CSU**

Parcel No.

Serial No. \_\_\_\_\_

**CONTROLLED SURFACE USE STIPULATION**

Surface occupancy or use is subject to the following special operating constraints.

Operational constraints may include utilizing topographic/vegetative screening, matching color tones of facilities with surrounding topographic features, orienting the well pad/facilities to minimize size and movement, and using only standard size production facilities.

On the lands described below:

T 141N, R 100 W, 5th PM  
Section 32: E2, NESW, S2SW

For the purpose of:

To meet the visual quality objective (VQO) of partial retention in the foreground and middleground seen area of \_\_\_\_\_ National Park (Management Area \_\_, \_\_\_\_\_ Forest Plan, page \_\_\_\_).

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

**SPECIAL ADMINISTRATION STIPULATION GUIDANCE**

There is no required or suggested uniform format for these stipulations. They are usually provided by another agency or organization. However, other agencies are to be encouraged to use the uniform stipulation format.

Special Administration stipulations are used in situations where the three uniform stipulation forms or lease notices do not adequately address the concern. Special Administration stipulations should be used only when special external conditions, such as pre-existing agreements with other agencies, require use of a one-of-a-kind stipulation that is not used in any other area or situation. The resource use or value, location, and specific restrictions must be clearly identified. In addition, the external agency, agreement, or pre-existing use, which dictates the special restrictions, must be identified. The stipulation should state if and under what circumstances a waiver, exception, or modification may be allowed.

Examples of Special Administration stipulations are contained in the document, "Uniform Format For Oil And Gas Lease Stipulations," through the Forest Service or BLM.

This section describes the special stipulations that will be attached to leases for each action alternative. Conditions are also described for waivers, exceptions, and modifications. The justification for the stipulation supports the alternatives that include the stipulation.

#### WILDLIFE STIPULATION # 1

**RESOURCE:** Bald Eagle And Peregrine Falcon Nests

**Stipulation:** No Surface Occupancy

**Alternatives:** 1, 2, 4, 5, 7

**Objective:** To preclude surface disturbing activities within ½ mile of bald eagle and peregrine falcon nests to protect habitat and to facilitate recovery of the species.

**Waiver:** A waiver may be granted if new habitat studies, in coordination with the United States Fish and Wildlife Service, conclude the area affected by this stipulation no longer contains an eagle or falcon nest.

**Exception:** An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.

**Modification:** Same as Waiver.

**Justification:** A No Surface Occupancy stipulation is necessary to ensure continued use of the nest. If operations within these areas were to be under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms, the use of these areas by eagles or falcons could be affected. The No Lease option is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation; No Lease could expose the Federal mineral estate to revenue losses as a result of drainage from adjacent leased lands.

#### WILDLIFE STIPULATION # 2

**RESOURCE:** Big Game Birthing Areas

**Stipulation:** Timing Limitation

**Alternative:** 4

**Objective:** To preclude surface disturbing activities within the big game birthing areas which could cause increased stress and/or displacement during the critical time period (April 1 to July 1).

**Waiver:** A waiver may be granted if habitat studies, in coordination with the Montana Department of Fish, Wildlife and Parks, conclude the area affected by this stipulation is no longer used as a birthing area.

**Exception:** An exception may be granted if seasonal conditions are such that the animals have moved (e.g. an early spring and snowmelt) and are not using the specified area during the time they would normally be expected to be there.

**Modification:** A modification of the stipulation may be granted if habitat studies show that a portion of the area is not used as a birthing area.

**Justification:** Under Standard Lease Terms activities can be delayed for up to 60 days which is not long enough to protect the big game birthing areas. By attaching a Timing Limitation stipulation to the lease,

the lessee is made aware of the annual limitation on exploration and construction activities at the time the lease is acquired. The No Lease option or a No Surface Occupancy stipulation are overly restrictive since operations conducted outside the birthing period would have a minimal effect on the big game.

### WILDLIFE STIPULATION # 3

**RESOURCE:** Big Game Winter Range

**Stipulation:** Timing Limitation

**Alternatives:** 1, 4, 5, 7

**Objective:** To preclude surface disturbing activities in big game winter range which could cause increased stress and/or displacement of animals during the critical time period (December 1 to May 15).

**Waiver:** A waiver may be granted if habitat studies, in coordination with the Montana Department of Fish, Wildlife and Parks, conclude the area affected by this stipulation is no longer used as a winter range.

**Exception:** An exception may be granted if seasonal conditions are such that the animals have moved and are not using the specified area during the time they would normally be expected to be there.

**Modification:** A modification of the stipulation may be granted if habitat studies show that a portion of the area is not important winter range.

**Justification:** Standard Lease Terms provide for delay of activities for up to 60 days. Since the critical period extends for approximately 166 days, the Standard Lease Terms would not be adequate. The No Lease option or a No Surface Occupancy stipulation are overly restrictive since operations conducted outside the wintering period would have minimal effect on big game.

### WILDLIFE STIPULATION # 4

**RESOURCE:** Bald Eagle and Peregrine Falcon Nesting Areas

**Stipulation:** Timing Limitation

**Alternatives:** 1, 2, 4, 5, 7

**Objective:** To preclude surface disturbing activities in critical habitat (nesting areas) which may cause increased stress and/or displacement of eagles or falcons during the critical time period (February 1 to September 1). This stipulation will be applied by adding an additional 1/2 mile radius around the NSO area (see page II-6).

**Waiver:** A waiver may be granted if new habitat studies, in coordination with the United States Fish and Wildlife Service, conclude the area affected by this stipulation is not critical for eagles or peregrine falcon.

**Exception:** An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated. If the nest area contains only a peregrine falcon nest, we would consider granting an exception to the timing limitation from February 1 through March 31.

**Modification:** A modification of the stipulation may be granted if new habitat studies show that a portion of the area is not used by eagles or peregrine falcon.

**Justification:** Surface activities within these areas could adversely impact bald eagles or peregrine falcon. If operations were allowed under Standard Lease Terms or Controlled Surface Use eagles and peregrine falcons could be displaced. The No Surface Occupancy and No Lease option are overly restrictive since impacts can be avoided by using a Timing Limitation stipulation.

**WILDLIFE STIPULATION # 5**[CODE BHD5] **RESOURCE:****Goshawk, Trumpeter Swan, and Ferruginous Hawk Nesting Areas**

- Stipulation:** Timing Limitation
- Alternatives:** 1, 2, 4, 5, 7
- Objective:** To preclude surface disturbing activities in critical habitat (nesting areas) which may cause increased stress and/or displacement of birds during the critical time period (April 1 to September 1).
- Waiver:** A waiver may be granted if new habitat studies, in coordination with the United States Fish and Wildlife Service, conclude the area affected by this stipulation is not critical for goshawks, trumpeter swans, or ferruginous hawks.
- Exception:** An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.
- Modification:** A modification of the stipulation may be granted if new habitat studies show that a portion of the area is not used by goshawks, trumpeter swans, or ferruginous hawks.
- Justification:** Surface activities within these areas could adversely impact goshawks, trumpeter swans, and ferruginous hawks. If operations were allowed under Standard Lease Terms or Controlled Surface Use, the swans and hawks could be displaced. No Surface Occupancy and No Lease option are overly restrictive since impacts can be avoided by using a Timing Limitation stipulation.

**WILDLIFE STIPULATION # 6****RESOURCE:****Grizzly Bear Habitat (Situation II)**

- Stipulation:** Controlled Surface Use
- Alternative:** 7
- Objective:** To ensure proposed activities do not adversely affect the viability of grizzly bears. Operations will be designed and/or located to not adversely affect grizzly bears. Coordination of timing and timing adjustments in activities within grizzly use areas may be necessary. Noise levels may also be limited.
- Waiver:** A waiver may be granted if new habitat studies in coordination with the U.S. Fish and Wildlife Service conclude the area affected by this stipulation is not in a grizzly use area.
- Exception:** An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.
- Modification:** A modification of the stipulation may be granted if new habitat studies show a portion of the area is not in grizzly use areas.
- Justification:** Surface activities within these areas could adversely affect grizzly bears. Under Standard Lease Terms operations could be delayed up to 60 days and/or moved 200 meters. By attaching a Controlled Surface Use stipulation to the lease the lessee is made aware of possibilities of longer delays and/or moves to mitigate for adverse affects from activities. Timing Limitations, No Surface Occupancy and No Lease option are deemed overly restrictive.

**FISHERIES STIPULATION # 1****RESOURCE:****Fluvial Arctic Grayling Recovery Site**

- Stipulation:** Controlled Surface Use - ½ mile buffer on east side of Ruby River and ¼ mile buffer on west side of river from forest boundary on north to headwaters near Divide Creek on south.

**Alternative:** 7

**Objective:** To minimize accelerated sedimentation into the upper Ruby River drainage recovery area from oil and gas activities.

**Waiver:** A waiver may be granted on the upper Ruby River if a decision by the Montana Department of Fish, Wildlife and Parks to stock grayling is not made by May 31, 1998. Consultation with MDFW&P will occur prior to granting a waiver.

**Exception:** An exception may be granted if MDFW&P drops this area as a recovery site.

**Modification:** Justification for a modification is not apparent at this time.

**Justification:** Controlled Surface Use is necessary to maintain the greatest amount of flexibility in order to minimize accelerated sedimentation into the upper Ruby River drainage recovery area. Increased sediment could adversely affect the sensitive grayling's viability. Operations under Standard Lease Terms or Timing Limitation could potentially result in the loss of the introduced grayling population. No Surface Occupancy was not considered appropriate since impacts can be mitigated using a Controlled Surface Use stipulation.

#### FISHERIES STIPULATION # 2

**RESOURCE:** Fluvial Arctic Grayling, Occupied and Influencing Habitat

**Stipulation:** Controlled Surface Use

**Alternative:** 7

**Objective:** To minimize accelerated sedimentation into occupied areas along Trail Creek and important habitat features of the Big Hole River. This stipulation will be applied as described on page II-14.

**Waiver:** Justification for a waiver is not apparent at this time.

**Exception:** Justification for an exception is not apparent at this time.

**Modification:** Justification for a modification is not apparent at this time.

**Justification:** Controlled Surface Use is necessary to maintain the greatest amount of flexibility in order to minimize accelerated sedimentation into occupied reaches along Trail Creek and pools in the Big Hole River. Increased sediment could adversely affect the sensitive grayling's viability. Operations under Standard Lease Terms or Timing Limitation could potentially result in the loss of the grayling population. No Surface Occupancy was not considered appropriate since impacts can be mitigated using a Controlled Surface Use stipulation.

#### FISHERIES STIPULATION # 3

**RESOURCE:** Westslope Cutthroat Trout Habitat

**Stipulation:** Controlled Surface Use

**Alternative:** 7

**Objective:** To ensure a healthy aquatic habitat exists in watersheds important to the viability of Upper Missouri Westslope Cutthroat Trout. This stipulation will be applied as described in Appendix J, pages 9 and 10. A watershed assessment in unsurveyed streams with "potential" populations may be needed.

**Waiver:** A waiver may be granted if the watershed is no longer considered important to the viability of the species. For instance:

a) In streams with "potential" populations (unsurveyed or suspected but undocumented) where a fish survey has been conducted and westslope cutthroat trout are not present.

b) If the definition of "Introgressed" as stated in the westslope strategy for oil and gas leasing in the upper Missouri River Basin (Appendix J, page J-7) is changed to be smaller than "less than 10% genetic introgression".

**Exception:**

An exception may be granted if, based on an analysis by a hydrologist and fisheries biologist of the potential sediment delivery from the drainage and the surface use plan of operation, a determination is made that the plan causes:

- a) No net increase in sediment over existing conditions.
- b) No adverse effects on water quality or quantity.

**Modification:**

Justification for a modification could be the same as for an exception.

**Justification:**

Controlled Surface Use is necessary to maintain the greatest amount of flexibility to achieve the objectives stated above. Increased sediment could adversely affect the sensitive westslope's viability. Operations under Standard Lease Terms or Timing Limitation could potentially result in the loss of the westslope populations. No Surface Occupancy was not considered appropriate since impacts can be mitigated using a Controlled Surface Use stipulation.

#### FISHERIES STIPULATION # 4

**RESOURCE:**

Westslope Cutthroat Trout Habitat

**Stipulation:**

No Surface Occupancy

**Alternative:**

7

**Objective:**

To ensure a healthy aquatic habitat exists in watersheds important to the viability of Upper Missouri Westslope Cutthroat Trout through application of the following mitigation measures:

- a) No net increase in sediment over existing conditions.
- b) No adverse effects on water quality or quantity.

This stipulation will be applied as written in Appendix J, pages 8 and 9.

**Waiver:**

A waiver may be granted if the stream is no longer considered important to the viability of the species.

**Exception: A.**

In the roaded sections of "Partially Roaded" drainages where the risk of extinction to the local population is High or Extreme (WCT Risk Map in project files), the drainage will be evaluated for potential sediment delivery by, at a minimum, a hydrologist and fisheries biologist. A Controlled Surface Use stipulation could be applied if:

- a) Forty acre minimum blocks can be identified for both road and pad construction.
- b) There would be no net increase in sediment over existing conditions to the stream during either the construction or operation phases.
- c) There would be no adverse effect on water quality or quantity.

**B.**

In the unroaded portion of "Partially Roaded" drainages, the drainage will be evaluated for potential sediment delivery by a hydrologist and fisheries biologist. A Controlled Surface Use stipulation could be applied if:

- a) Forty acre minimum blocks can be identified for both road and pad construction.
- b) There would be no net increase in sediment over existing conditions to the stream during either the construction or operation phases.

- c) There would be no adverse effect on water quality or quantity.

**Modification:** Justification for a modification is not apparent at this time.

**Justification:** Increased sediment and/or decreased water quality or quantity within these drainages could adversely affect sensitive trout viability, therefore, a No Surface Occupancy stipulation was deemed necessary. Operations within these drainages under Standard Lease Terms or Timing Limitation could potentially result in the loss of sensitive trout populations. The No Lease option was not considered appropriate since impacts can be mitigated using a No Surface Use stipulation and not leasing could subject the Federal mineral estate to drainage from adjacent leased lands.

Forest Plan Direction: Goals, 1.a & d; 2, page II-1. Standards: Threatened and Endangered Species 6, page II-29.

**FISHERIES STIPULATION # 5**

**RESOURCE:** Westslope Cutthroat Trout Habitat

**Stipulation:** No Surface Occupancy

**Alternative:** 7

**Objective:** To ensure a healthy aquatic habitat exists in watersheds important to the viability of Upper Missouri Westslope Cutthroat Trout through application of the following mitigation measures:

- a) No net increase in sediment over existing conditions.
  - b) No adverse effects on water quality or quantity.
- This stipulation will be applied as written in Appendix J, page 8.

**Waiver:** A waiver may be granted if the stream is no longer considered important to the viability of the species.

**Exception:** In unroaded drainages, the drainage will be evaluated for potential sediment delivery by a hydrologist and fisheries biologist. A Controlled Surface Use stipulation for a drill pad ONLY could be applied if:

- a) Forty acre minimum blocks can be identified for pad construction.
- b) There would be no net increase in sediment over existing conditions to the stream during either the construction or operation phases.
- c) There would be no adverse effect on water quality or quantity.

**Modification:** Justification for a modification is not apparent at this time.

**Justification:** Increased sediment and/or decreased water quality or quantity within these drainages could adversely affect sensitive trout viability, therefore, a No Surface Occupancy stipulation was deemed necessary. Operations within these drainages under Standard Lease Terms or Timing Limitation could potentially result in the loss of sensitive trout populations. The No Lease option was not considered appropriate since impacts can be mitigated using a No Surface Use stipulation and not leasing could subject the Federal mineral estate to drainage from adjacent leased lands.

Forest Plan Direction: Goals, 1.a & d; 2, page II-1. Standards: Threatened and Endangered Species 6, page II-29.



[CODE BHD12]

**SOILS STIPULATION # 1**

**RESOURCE:** Slopes greater than 65 percent

**Stipulation:** No Surface Occupancy

**Alternatives:** 1, 4

**Objective:** To preclude construction of well sites and related facilities on slopes over 65% which would be difficult to rehabilitate.

**Waiver:** Justification for a waiver is not apparent at this time.

**Exception:** An exception may be granted for roads, pipelines, powerlines, but not well sites, if the operator can demonstrate in a surface use plan of operations that adverse effects can be minimized and activities safely conducted.

**Modification:** A modification may be granted if an on-the-ground review of a proposed well site or facility shows that an area of less than 65% slope exists or that engineering design of the site can mitigate erosion and reclamation concerns for roads, pipelines, or powerlines, but not for well sites.

**Justification:** This stipulation is necessary to protect the basic soil and water resources. Soil disturbance of an area required for a well pad on steep slopes or sensitive soils would be difficult to reclaim and could result in unacceptable soil loss through erosion, displacement, and compaction and could potentially increase the sediment load of streams. If operations within these areas were to be allowed under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms, erosion and reclamation of the area could be adversely affected. The No Lease option is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation. No Lease could expose the federal mineral estate to revenue losses as a result of drainage from adjacent leased lands.

**SOILS STIPULATION # 2**

**RESOURCE:** Areas of Mass Failure

**Stipulation:** No Surface Occupancy

**Alternatives:** 1, 4, 5, 7

**Objective:** To preclude construction of well sites and related facilities in areas where the potential for mass failure exists, and which would be difficult to rehabilitate. These areas also have a high erosion and stability hazard and would be difficult to reclaim. Management activities will be designed to sustain site productivity.

**Waiver:** Justification for a waiver is not apparent at this time.

**Exception:** An exception may be granted if the operator can demonstrate in a surface use plan of operations that adverse effects can be minimized and activities safely conducted.

**Modification:** A modification may be granted if an on-the-ground review of a proposed well site or facility shows an area of mass-wasted soils does not exist or that engineering design of the site can mitigate erosion and reclamation concerns.

**Justification:** This stipulation is necessary to protect the basic soil and water resources. Soil disturbance of an area required for a well pad on mass wasting soils would be difficult to reclaim, could result in unacceptable soil loss through erosion, and potentially increase the sediment load of streams. If operations in these areas were to be allowed under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms, erosion and reclamation of the area could be affected. The No Lease option is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation. No Lease could expose the federal mineral estate to revenue losses as a result of drainage from adjacent leased lands.

[CODE BHD14]

**SOILS STIPULATION # 3**

**RESOURCE:** Slopes greater than 35% and Soils Prone to Failure.

**Stipulation:** No Surface Occupancy

**Alternatives:** 1, 4, 5,7

**Objective:** To preclude construction of well sites and related facilities on slopes over 35% which would be difficult to rehabilitate; also, to preclude surface disturbing activities on areas that have a high erosion/stability hazard and would be difficult to reclaim.

**Waiver:** Justification for a waiver is not apparent at this time.

**Exception:** An exception may be granted if the operator can demonstrate in a surface use plan of operations that adverse effects can be minimized and activities safely conducted.

**Modification:** A modification may be granted if an on-the-ground review of a proposed well site or facility shows an area of less than 35% slope exists and mass wasting-prone soils do not exist or that engineering design of the site can mitigate erosion and reclamation concerns.

**Justification:** This stipulation is necessary to protect the basic soil and water resources. Soil disturbance of an area required for a well pad on steep slopes or mass wasting soils would be difficult to reclaim, could result in unacceptable soil loss through erosion, and could increase the sediment load of streams. If operations within these areas were to be allowed under Controlled Surface Use, Timing Limitations, or Standard Lease Terms, erosion and reclamation of the area could be affected. The No Lease option is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation. No Lease could expose the federal mineral estate to revenue losses as a result of drainage from adjacent leased lands.

**SOILS STIPULATION # 4**

**RESOURCE:** Perennial Streams & Lakes - 500 ft. buffer

**Stipulation:** No Surface Occupancy

**Alternative:** 1

**Objective:** To preclude construction of well sites and related facilities in areas within 500 feet of an perennial stream or lake to protect water quality and sediment.

All projects affecting or suspected of affecting the watershed resources will incorporate Best Management Practices into the project design and implementation. The source document for candidate Best Management Practices will be "Soils and Water Conservation Practices Handbook", Forest Service Handbook 2509.22. Project analysis will determine which of the candidate practices is appropriate for a given project and situation.

Refer to Forest Plan II-4 - II-5, part c.; II-30 - II-31, WATERSHED; III-34 - III-40 (MA # 11 and # 12).

**Waiver:** Justification for a waiver is not apparent at this time.

**Exception:** An exception may be granted if the operator can demonstrate in a surface use plan of operations that adverse effects can be minimized and activities safely conducted.

**Modification:** A modification may be granted if an on-the-ground review of a proposed well site or facility demonstrates the proposed site will not impact any perennial stream or lake.

**Justification:** This stipulation is necessary to protect the basic soil and water resources. Soil disturbance of an area required for a well pad near perennial streams and/or lakes could create water quality problems through erosion, and potentially increase the sediment load of streams. If operations in these areas were to be allowed under either a Controlled Surface Use or Timing Limitations

stipulation, or under Standard Lease Terms, erosion and reclamation of the area could be affected. The No Lease option is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation. No Lease could expose the federal mineral estate to revenue losses as a result of drainage from adjacent leased lands.

#### SOILS STIPULATION # 5

**RESOURCE:** Areas Sensitive to Soil Compaction (Sensitive Soils).

**Stipulation:** Controlled Surface Use

**Alternative:** 1, 4, 5, 7

**Objective:** To protect or avoid areas where soil conditions are such that the site would be difficult to rehabilitate and have a high compaction/displacement hazard and would be difficult to reclaim. Reclamation standards will include: control of the source of plant material and seed (genetic suitability); control of species, planting rate and methods used, seed bed preparation method, and quality and handling of the topsoil available.

**Waiver:** Justification for a waiver is not apparent at this time.

**Exception:** An exception may be granted if the operator can demonstrate in a surface use plan of operations that adverse effects can be minimized and activities safely conducted.

**Modification:** A modification may be granted if an on-the-ground review of a proposed well site or facility shows the area of sensitive soils does not exist or that engineering design of the site can mitigate erosion and reclamation concerns.

**Justification:** This stipulation is necessary to protect the basic soil and water resources. Soil disturbance on sensitive soils in an area of the size required for a well pad would be difficult to reclaim and could result in unacceptable soil damage, compaction, and displacement; it could also increase the sediment load of streams. If operations within these areas were to be allowed under either a Timing Limitation stipulation or under Standard Lease Terms, sensitive soils and reclamation of the area could be affected. The No Lease option is not considered appropriate since impacts can be mitigated using a Controlled Surface Use stipulation. No Lease could expose the federal mineral estate to revenue losses as a result of drainage from adjacent leased lands.

#### SOILS STIPULATION # 6

**RESOURCE:** Areas of Mass Failure

**Stipulation:** Controlled Surface Use

**Alternative:** 2

**Objective:** To require activities in areas of mass failure to be located and/or designed to avoid or minimize the potential for adverse effects to soil and water.

**Waiver:** Justification for a waiver is not apparent at this time.

**Exception:** An exception may be granted if the operator can demonstrate in a surface use plan of operations that adverse effects can be minimized and activities safely conducted.

**Modification:** A modification may be granted if an on-the-ground review of a proposed well site or facility shows that sensitive soils do not exist or that engineering design of the site can mitigate erosion and reclamation concerns.

**Justification:** This stipulation is necessary to protect the basic soil and water resources. Soil disturbance of an area required for a well pad on mass wasting soils would be difficult to reclaim, could result in unacceptable soil loss through erosion, and potentially increase the sediment load of streams. If operations in these areas were to be allowed under either a Standard Terms erosion and

reclamation of the area could be difficult to accomplish. The No Lease option is not considered appropriate since impacts can be mitigated using a Controlled Surface Use stipulation. No Lease could expose the federal mineral estate to revenue losses as a result of drainage from adjacent leased lands.

[CODE BHD18]

**SOILS STIPULATION # 7**

**RESOURCE:** 30 - 65% Slopes.

**Stipulation:** Controlled Surface Use

**Alternative:** 4

**Objective:** To require activities on 30 - 65% slopes to be located and/or designed to avoid or minimize the potential for adverse effects to soil and water.

**Waiver:** Justification for a waiver is not apparent at this time.

**Exception:** An exception may be granted if the operator can demonstrate in a surface use plan of operations that adverse effects can be minimized and activities safely conducted.

**Modification:** A modification may be granted if an on-site inspection demonstrates slopes over 30% do not exist on the specific site.

**Justification:** A Controlled Surface Use stipulation is necessary to prevent surface disturbance that could adversely affect soil and water. If operations within these areas were to be allowed under Standard Lease Terms, water quality of the area could be affected. The No Surface Occupancy stipulation and No Lease option were not considered appropriate since impacts can be mitigated using a Controlled Surface Use stipulation. No Lease could expose the federal mineral estate to revenue losses as a result of drainage from adjacent leased lands.

[CODE BHD19]

**SOILS STIPULATION # 8**

**RESOURCE:** Slopes greater than 35% and Soils Prone to Failure.

**Stipulation:** Controlled Surface Use

**Alternative:** 2

**Objective:** To require activities on slopes over 35% and soils prone to failure to be located and/or designed to avoid or minimize the potential for adverse effects to soil and water.

**Waiver:** Justification for a waiver is not apparent at this time.

**Exception:** An exception may be granted if the operator can demonstrate in a surface use plan of operations that adverse effects can be minimized and activities safely conducted.

**Modification:** A modification may be granted if an on-the-ground review of a proposed well site or facility shows that an area of less than 35% slope exists and that soils prone to failure do not exist or that engineering design of the site can mitigate erosion and reclamation concerns.

**Justification:** This stipulation is necessary to protect the basic soil and water resources. Soil disturbance of an area required for a well pad on steep slopes or soils prone to failure could be difficult to reclaim, could result in unacceptable soil loss through erosion, and could increase the sediment load of streams. If operations within these areas were to be allowed under Standard Lease Terms, erosion and reclamation of the area could be affected. The No Lease option is not considered appropriate since impacts can be mitigated using a Controlled Surface Use stipulation. No Lease could expose the federal mineral estate to revenue losses as a result of drainage from adjacent leased lands.

[CODE BHD20]

**SOILS STIPULATION # 9**

**RESOURCE:** Slopes greater than 65 percent

**Stipulation:** Controlled Surface Use

**Alternatives:** 2, 5

**Objective:** To require activities on slopes over 65% to be located and/or designed to avoid or minimize the potential for adverse effects to soil and water.

**Waiver:** Justification for a waiver is not apparent at this time.

**Exception:** An exception may be granted if the operator can demonstrate in a surface use plan of operations that adverse effects can be minimized and activities safely conducted.

**Modification:** A modification may be granted if an on-the-ground review of a proposed well site or facility shows that an area of less than 65% slope exists or that engineering design of the site can mitigate erosion and reclamation concerns.

**Justification:** This stipulation is necessary to protect the basic soil and water resources. Soil disturbance of an area required for a well pad on steep slopes would be difficult to reclaim and could result in unacceptable soil loss through erosion, displacement, and compaction and could potentially increase the sediment load of streams. If operations within these areas were to be allowed under Standard Lease Terms erosion and reclamation of the area could be adversely affected. The No Lease option is not considered appropriate since impacts can be mitigated using a Controlled Surface Use stipulation. No Lease could expose the federal mineral estate to revenue losses as a result of drainage from adjacent leased lands.

[CODE BHD21]

**SOILS STIPULATION # 10**

**RESOURCE:** Slopes greater than 60 percent

**Stipulation:** No Surface Occupancy

**Alternative:** 7

**Objective:** To preclude construction of well sites and related facilities on slopes over 60% which would be difficult to rehabilitate.

**Waiver:** Justification for a waiver is not apparent at this time.

**Exception:** An exception may be granted for roads, pipelines, powerlines, but not well sites, if the operator can demonstrate in a surface use plan of operations that adverse effects can be minimized and activities safely conducted.

**Modification:** A modification may be granted if an on-the-ground review of a proposed well site or facility shows that an area of less than 60% slope exists or that engineering design of the site can mitigate erosion and reclamation concerns for roads, pipelines, or powerlines, but not for well sites.

**Justification:** This stipulation is necessary to protect the basic soil and water resources. Soil disturbance of an area required for a well pad on steep slopes or sensitive soils would be difficult to reclaim and could result in unacceptable soil loss through erosion, displacement, and compaction and could potentially increase the sediment load of streams. If operations within these areas were to be allowed under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms, erosion and reclamation of the area could be adversely affected. The No Lease option is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation. No Lease could expose the federal mineral estate to revenue losses as a result of drainage from adjacent leased lands.

**RECREATION STIPULATION # 1**

**RESOURCE:** MA 8 Areas - Primitive and Semi-Primitive Recreation.

**Stipulation:** No Surface Occupancy

**Alternative:** 4

**Objective:** To maintain semi-primitive and primitive values of the area.

**Waiver:** A waiver may be granted if the area is no longer managed for MA 8 values.

**Exception:** Justification for an exception is not apparent at this time.

**Modification:** This stipulation may be modified if it is determined portions of the lease are no longer managed for MA 8 values.

**Justification:** These areas have been recognized for their high value as primitive and semi-primitive areas. Application of a No Surface Occupancy stipulation protects the surface resources and does not preclude development of potential oil and gas resources. If operations were allowed under Standard Lease Terms, the roadless character and recreational value of the area could be impacted. The No Lease option is not necessary since the application of a No Surface Occupancy stipulation protects the resource concern and provides some opportunity to explore for oil and gas using directional drilling technology.

**RECREATION STIPULATION # 2**

**RESOURCE:** MA 7 - Campgrounds and Administrative Sites.  
MA 2 - Administrative Sites Over 40 Acres.  
MA 29 - National Recreation Trails.

**Stipulation:** No Surface Occupancy - 200' buffer on National Recreation Trails.

**Alternatives:** 1, 4, 5, 7

**Objective:** To preclude surface occupancy and surface disturbing activities within developed recreation and administrative sites.

**Waiver:** A waiver may be granted if the site is moved or eliminated.

**Exception:** Same

**Modification:** Same

**Justification:** Construction of a developed campground or other site allocates those specific lands for a specific use and a No Surface Occupancy stipulation is deemed necessary to protect the capital investment. If operations were to be allowed within these areas under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms, the capital investment and/or recreational setting could be affected. The No Lease option is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation and not leasing could subject the Federal mineral estate to drainage from adjacent leased lands.

**RECREATION STIPULATION # 3**

**RESOURCE:** MA 28 - Grasshopper Recreation Area.  
MA 30 - Rock Creek Recreation Area.

**Stipulation:** No Surface Occupancy

**Alternative:** 4

**Objective:** To preclude surface occupancy and surface disturbing activities in these recreation areas.

**Waiver:** A waiver may be granted if these areas cease to be managed for their recreational values.

**Exception:** Same

**Modification:** Same

**Justification:** A No Surface Occupancy stipulation is considered necessary to protect the recreation experiences. Controlled Surface Use would not eliminate noise, lights, and other disturbances to the recreationists at the site. No Lease is overly restrictive since operations can be mitigated using a No Surface Occupancy stipulation.

#### RECREATION STIPULATION # 4

**RESOURCE:** Scenic And Recreational River Candidates

**Stipulation:** Controlled Surface Use - ¼ mile buffer

**Alternatives:** 1, 4, 7

**Objective:** To protect scenic and recreational river values along the river corridor and within a buffer zone of ¼ mile on either side, until eligibility studies for Wild and Scenic River designation have been completed. Proposed activities must be designed or located in such a manner as to not affect the eligibility of the river segment.

**Waiver:** This stipulation may be waived if it is determined the entire lease no longer contains a scenic and recreational river candidate area.

**Exception:** An exception may be granted if the operator can demonstrate in a surface use plan of operations that the scenic and recreational river values of the area can be maintained at a level acceptable to the authorized forest officer.

**Modification:** This stipulation may be modified if it is determined portions of the lease no longer contain scenic and recreational river candidate areas.

**Justification:** The area is a candidate area for wild and scenic rivers designation. Therefore, a Controlled Surface Use stipulation is necessary to notify potential lessees of the resource concern and restrictions on activities. Under Standard Lease Terms some impacts could be mitigated but operations could not be denied if all the scenic and recreational values could not be protected. The No Surface Occupancy stipulation or No Lease option were not considered appropriate since impacts can be mitigated using a Controlled Surface Use stipulation and not leasing could subject the Federal mineral estate to drainage from adjacent leased lands.

#### RECREATION STIPULATION # 5

**RESOURCE:** MA 28 - Grasshopper Recreation Area.  
MA 30 - Rock Creek Recreation Area.

**Stipulation:** Controlled Surface Use

**Alternatives:** 1, 5, 7

**Objective:** To control surface occupancy and new surface disturbing activities in these recreation areas by requiring activities to be located and operations conducted in a manner that will minimize the effects on the characteristics of the area. Extensive reclamation will be required.

**Waiver:** A waiver may be granted if these areas cease to be managed for their recreational values.

**Exception:** An exception may be granted if these areas cease to be managed for their recreational values.

**Modification:** A modification may be granted if these areas cease to be managed for their recreational values.

**Justification:** A Controlled Surface Use stipulation is considered necessary to protect the recreation experience. By enforcing a CSU stipulation, noise, lights and other disturbances to the recreationists at the site should be minimized. A No Surface Occupancy stipulation or No Lease are overly restrictive since operations within the area can be mitigated using a Controlled Surface Use stipulation.

#### RECREATION STIPULATION # 6

**RESOURCE:** Other Summer Homes + ¼ mile buffer.

**Stipulation:** Controlled Surface Use

**Alternatives:** 4, 5, 7

**Objective:** To control surface occupancy and new surface disturbing activities for summer homes not located in MA 28 by requiring activities to be located and operations conducted in a manner that will minimize the effects on the characteristics of the area. Extensive reclamation will be required.

**Waiver:** A waiver may be granted if the site is moved or eliminated.

**Exception:** An exception may be granted if the site is moved or eliminated.

**Modification:** A modification may be granted if the site is moved or eliminated.

**Justification:** A Controlled Surface Use stipulation is considered necessary to protect the recreation experiences of the summer home permittees. By enforcing a CSU stipulation, noise, lights and other disturbances to the recreationists at the site should be minimized. A No Surface Occupancy stipulation or No Lease are overly restrictive since operations within the area can be mitigated using a Controlled Surface Use stipulation and occupation of the sites is not year-round.

#### RECREATION STIPULATION # 7

**RESOURCE:** MA 8 Areas

**Stipulation:** Controlled Surface Use

**Alternatives:** 1, 5, 7

**Objective:** To maintain primitive and semi-primitive values of the area through use of extensive reclamation requirements. The stipulation will also require activities to be located and operations conducted in a manner that will minimize the effects on the characteristics of the area.

**Waiver:** A waiver may be granted if the area is no longer managed for MA 8 values.

**Exception:** Justification for an exception is not apparent at this time.

**Modification:** This stipulation may be modified if it is determined portions of the lease are no longer managed for MA 8 values.

**Justification:** These areas have been recognized for their high value as primitive and semi-primitive areas. Application of a Controlled Surface Use stipulation protects the surface resources and does not preclude development of potential oil and gas resources. If operations were allowed under Standard Lease Terms, the roadless character and recreational value of the area could be impacted. The No Lease option is not necessary since the application of a Controlled Surface Use stipulation protects the resource concern and provides some opportunity to explore for oil and gas. Oil and



Gas exploration activities can be located or mitigated such that the integrity of the area will not be affected.

#### RECREATION STIPULATION # 8

**RESOURCE:** Campgrounds + ½ mile buffer.

**Stipulation:** No Surface Occupancy

**Alternative:** 7

**Objective:** To preclude surface occupancy and surface disturbing activities within ½ mile of developed campgrounds.

**Waiver:** A waiver may be granted if the site is moved or eliminated.

**Exception:** An exception may be granted if the site is moved or eliminated.

**Modification:** A modification may be granted if the site is moved or eliminated.

**Justification:** Construction of a developed campground or other site allocates those specific lands for a specific use and a No Surface Occupancy stipulation is deemed necessary to protect the capital investment. If operations were to be allowed within these areas under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms, the capital investment and/or recreational setting could be affected. The No Lease option is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation and not leasing could subject the Federal mineral estate to drainage from adjacent leased lands.

#### SCENIC RESOURCES STIPULATION # 1

**RESOURCE:** Scenic Resources - Foreground Retention

**Stipulation:** No Surface Occupancy

**Alternatives:** 4, 5, 7

**Objective:** To protect the visual quality of the area. A natural appearance must be maintained. Refer to "Visual Quality Objectives Map" and "Sensitivity Level 1 Buffer Map", Beaverhead National Forest Oil & Gas EIS GIS files, 1994; Forest Plan pg. II-7, g. Visual Quality, and Appendix D; and "National Forest Landscape Management Volume 2, Chapter 1, The Visual Management System." Forest Service, USDA, Agricultural Handbook Number 462.

**Waiver:** Justification for a waiver is not apparent at this time.

**Exception:** An exception may be granted if the operator can demonstrate in a surface use plan of operations that the visual quality of the area can be maintained at the Retention Visual Quality Objective Level as seen from foreground Sensitivity Level 1 views.

**Modification:** Justification for a modification is not apparent at this time.

**Justification:** The area has been identified as high value scenery because of its natural beauty in close proximity to travel routes or sites where users expect and desire a natural appearance. Therefore, a No Surface Occupancy stipulation is deemed necessary to notify potential lessees of the resource concern and restrictions.

**SCENIC RESOURCES STIPULATION # 2**

**RESOURCE:** Scenic Resources - Roads and Trails Buffered

**Stipulation:** No Surface Occupancy

**Alternative:** 1

**Objective:** To require a 500 foot buffer on all roads and a 200 foot buffer on all trails to protect the visual quality of the area. Refer to "Visual Quality Objectives Map" and "Sensitivity Level 1 Buffer Map", Beaverhead National Forest Oil & Gas EIS GIS files, 1994; Forest Plan pg. II-7, g. Visual Quality, and Appendix D; and "National Forest Landscape Management Volume 2, Chapter 1, The Visual Management System." Forest Service, USDA, Agricultural Handbook Number 462.

**Waiver:** Justification for a waiver is not apparent at this time.

**Exception:** An exception may be granted if the operator can demonstrate in a surface use plan of operations that visual quality can be maintained at the mapped Visual Quality Objective.

**Modification:** Justification for a modification is not apparent at this time.

**Justification:** The area has been identified as high value scenery because of its close proximity to travel routes where people expect and desire a natural appearance. Therefore, a No Surface Occupancy stipulation is deemed necessary to notify potential lessees of the resource concern and restrictions. The No Lease option would be overly restrictive since No Surface Occupancy stipulations can mitigate the effects.

**SCENIC RESOURCES STIPULATION # 3**

**RESOURCE:** Scenic Resources - Foreground Retention

**Stipulation:** Controlled Surface Use

**Alternative:** 2

**Objective:** To ensure the visual quality of the area is maintained, proposed activities would be required to be located to minimize impacts to visual quality. Refer to "Visual Quality Objectives Map" and "Sensitivity Level 1 Buffer Map", Beaverhead National Forest Oil & Gas EIS GIS files, 1994; Forest Plan pg. II-7, g. Visual Quality, and Appendix D; and "National Forest Landscape Management Volume 2, Chapter 1, The Visual Management System." Forest Service, USDA, Agricultural Handbook Number 462.

**Waiver:** Justification for a waiver is not apparent at this time.

**Exception:** An exception may be granted only for unforeseen circumstances, such as drilling or reclamation problems, such that the visual quality objective cannot be met.

**Modification:** Justification for a modification is not apparent at this time.

**Justification:** Application of the Controlled Surface Use stipulation identifies the standard the operator should meet and provides the opportunity to still conduct activities. The No Lease option or a No Surface Occupancy stipulation are deemed overly restrictive in that the visual quality objective can often be met by using vegetative or topographic screening and similar methods to mitigate the visual impacts. Under Standard Lease Terms some impacts might be mitigated but scenic resources would likely be adversely affected.

**SCENIC RESOURCES STIPULATION # 4**

**RESOURCE:** Scenic Resources - Foreground Partial Retention

**Stipulation:** Controlled Surface Use

**Alternatives:** 4, 5, 7

**Objective:** To protect the visual quality of the area. A near natural appearance must be maintained. Refer to "Visual Quality Objectives Map" and "Sensitivity Level 1 Buffer Map", Beaverhead National Forest Oil & Gas EIS GIS files, 1994; Forest Plan pg. II-7, g. Visual Quality, and Appendix D; and "National Forest Landscape Management Volume 2, Chapter 1, The Visual Management System." Forest Service, USDA, Agricultural Handbook Number 462.

**Waiver:** Justification for a waiver is not apparent at this time.

**Exception:** An exception may be granted only for unforeseen circumstances, such as drilling or reclamation problems, such that the visual quality objective cannot be met.

**Modification:** Justification for a modification is not apparent at this time.

**Justification:** Application of the Controlled Surface Use stipulation identifies the standard the operator must meet and provides the opportunity to still conduct activities as long as that standard is met. The No Lease option or a No Surface Occupancy stipulation are deemed overly restrictive in that the visual quality objective can often be met using vegetative or topographic screening and similar methods to mitigate the visual impacts. Under Standard Lease Terms some impacts could be mitigated but operations could not be denied if the visual quality objective could not be met.

**SCENIC RESOURCES STIPULATION # 5**

**RESOURCE:** Scenic Resources - Middle & Background - Retention

**Stipulation:** Controlled Surface Use

**Alternatives:** 4, 5, 7

**Objective:** To ensure the visual quality of the area is maintained, proposed activities would be required to be located or designed to meet the visual quality objectives of retention. Refer to "Visual Quality Objectives Map" and "Sensitivity Level 1 Buffer Map", Beaverhead National Forest Oil & Gas EIS GIS files, 1994; Forest Plan pg. II-7, g. Visual Quality, and Appendix D; and "National Forest Landscape Management Volume 2, Chapter 1, The Visual Management System." Forest Service, USDA, Agricultural Handbook Number 462.

**Waiver:** Justification for a waiver is not apparent at this time.

**Exception:** An exception may be granted only for unforeseen circumstances, such as drilling or reclamation problems, such that the visual quality objective cannot be met.

**Modification:** Justification for a modification is not apparent at this time.

**Justification:** Application of the Controlled Surface Use stipulation identifies the standard the operator must meet and provides the opportunity to still conduct activities as long as that standard is met. The No Lease option or a No Surface Occupancy stipulation are deemed overly restrictive in that the visual quality objective can often be met using vegetative or topographic screening and similar methods to mitigate the visual impacts. Under Standard Lease Terms some impacts could be mitigated but operations could not be denied if the visual quality objective could not be met.

**SCENIC RESOURCES STIPULATION # 6**

**RESOURCE:** Scenic Resources - Middle & Background - Partial Retention

**Stipulation:** Controlled Surface Use

**Alternative:** 4

**Objective:** To ensure the visual quality of the area is maintained, proposed activities would be required to be located or designed to meet the visual quality objectives of partial retention. Refer to "Visual Quality Objectives Map" and "Sensitivity Level 1 Buffer Map", Beaverhead National Forest Oil & Gas EIS GIS files, 1994; Forest Plan pg. II-7, g. Visual Quality, and Appendix D; and "National Forest Landscape Management Volume 2, Chapter 1, The Visual Management System." Forest Service, USDA, Agricultural Handbook Number 462.

**Waiver:** Justification for a waiver is not apparent at this time.

**Exception:** An exception may be granted only for unforeseen circumstances, such as drilling or reclamation problems, such that the visual quality objective cannot be met.

**Modification:** Justification for a modification is not apparent at this time.

**Justification:** Application of the Controlled Surface Use stipulation identifies the standard the operator must meet and provides the opportunity to still conduct activities as long as that standard is met. The No Lease option or a No Surface Occupancy stipulation are deemed overly restrictive in that the visual quality objective can often be met using vegetative or topographic screening and similar methods to mitigate the visual impacts. Under Standard Lease Terms some impacts could be mitigated but operations could not be denied if the visual quality objective could not be met.

**SCENIC RESOURCES STIPULATION # 7**

**RESOURCE:** Scenic Resources - Roads, Trails, and Sites Buffered

**Stipulation:** Controlled Surface Use

**Alternative:** 1

**Objective:** To require a ½ mile buffer on Sensitivity Level 1 roads, trails, and sites, in order to protect the visual quality of the area. Refer to "Visual Quality Objectives Map" and "Sensitivity Level 1 Buffer Map", Beaverhead National Forest Oil & Gas EIS GIS files, 1994; Forest Plan pg. II-7, g. Visual Quality, and Appendix D; and "National Forest Landscape Management Volume 2, Chapter 1, The Visual Management System." Forest Service, USDA, Agricultural Handbook Number 462.

**Waiver:** Justification for a waiver is not apparent at this time.

**Exception:** An exception may be granted only for unforeseen circumstances, such as drilling or reclamation problems, such that the visual quality objective cannot be met.

**Modification:** Justification for a modification is not apparent at this time.

**Justification:** Application of the Controlled Surface Use stipulation identifies the standard the operator should meet and provides the opportunity to still conduct activities. The No Lease option or a No Surface Occupancy stipulation are deemed overly restrictive in that the visual quality objective can often be met by using vegetative or topographic screening and similar methods to mitigate the visual impacts. Under Standard Lease Terms some impacts might be mitigated but scenic resources would likely be adversely affected.

**HERITAGE RESOURCES STIPULATION # 1**

<b>RESOURCE:</b>	<b>Heritage Resource Sites and Traditional Cultural Areas (MA 3)</b>
<b>Stipulation:</b>	No Surface Occupancy
<b>Alternatives:</b>	1, 2, 4, 5, 6, 7
<b>Objective:</b>	To meet Forest Plan objectives to preserve in place significant heritage resources and to avoid disturbance to traditional cultural properties. Stipulations will be applied to ensure proposed activities do not adversely affect heritage resource sites larger than 40 acres. Heritage sites smaller than 40 acres will also be stipulated NSO but it is assumed operations will be designed and/or located to avoid adverse impact to them.
<b>Waiver:</b>	No waivers will be granted.
<b>Exception:</b>	If the on-site inspection reveals archeological or historic material that does not constitute a heritage site, or an archeological site exists but is not significant, an exception may be granted. No exceptions will be given for traditional cultural areas.
<b>Modification:</b>	No modifications will be granted.
<b>Justification:</b>	To prevent the construction of well sites, support facilities and access roads on heritage sites eligible for inclusion in the National Register of Historic Places, or on sites whose significance has not been determined. Forest Plan references: II-2, 11; II-7, h; II-32 & 33; III-7 & 8.

**STIPULATION**

<b>RESOURCE:</b>	<b>Research Natural Areas</b>
<b>Stipulation:</b>	No Surface Occupancy
<b>Alternatives:</b>	1, 5, 7
<b>Objective:</b>	To preclude surface disturbance within the area and to maintain its near natural conditions for future research use.
<b>Waiver:</b>	A waiver may be granted if it is determined the entire leasehold no longer contains portions of Research Natural Areas.
<b>Exception:</b>	Justification for an exception is not apparent at this time.
<b>Modification:</b>	A modification may be granted if the Research Natural Area boundaries have changed.
<b>Justification:</b>	A commitment has been made to maintain the area in near-natural conditions for future research use and a No Surface Occupancy stipulation is deemed necessary to protect the area in such a condition. Also, the area contains unique resources that cannot be provided elsewhere on the forest. If operations within these areas would be allowed under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms, natural conditions and value for future research within the area could be affected. The No Lease option is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation and not leasing could subject the Federal mineral estate to drainage from adjacent leased lands.

Additional stipulation maps provided by the office include:

[CODE BHD39]	Big Game Winter Range (12/1-5/15)
[CODE BHD50]	CSU Undifferentiated
[CODE BHD51]	NSO Undifferentiated

# Black Hills National Forest

# Appendix N

## Oil and Gas Leasing Stipulations

This Appendix contains stipulations to be used for oil and gas leasing. A map that displays areas available for leasing and the stipulations which apply accompanies this document.

**NO SURFACE OCCUPANCY STIPULATION (R2-FS-2820-14 (92))**

**This stipulation will be included where requirements under the Standard Lease Terms are not adequate to protect the resources. The following is a partial list of the types of activities and management objectives that will require this stipulation to be included in the lease.**

- Reservoirs
- Riparian areas
- Developed Recreation Areas
- Steep Slopes 40%+
- Cultural Sites
- Raptor nests
- Designated non motorized areas
- Designated significant cave locations.
- Designated Historic sites.

[CODE BH4]

[CODE BH10]

- Designated significant scenic landscape

Additional stipulation maps provided by the office:

[CODE BH20, BH\_ml\_n] No leasing

[CODE BH\_si\_NSO] Scenic integrity

[CODE BH10] Visual quality



R2-FS-2820-14 (92)

Serial No. \_\_\_\_\_

**NO SURFACE OCCUPANCY STIPULATION**

No surface occupancy or use is allowed on the lands described below (legal subdivision or other description).

For the purpose of:

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

## **TIMING LIMITATION STIPULATION (R2-FS-2820-15 (92))**

This stipulation will be included where requirements under the Standard Lease Terms are not adequate to protect the resources. The following is a partial list of the types of activities and management objectives that will require this stipulation to be included in the lease.

- Areas of high recreation activity
- Wildlife winter range
- Wildlife raptor nests
- Areas of high seasonal public use.
- Wildlife grouse nesting zone
- Wildlife spring elk calving range

R2-FS-2820-15 (92)

Serial No. \_\_\_\_\_

**TIMING LIMITATION STIPULATION**

No surface use is allowed during the following time period(s). This stipulation does not apply to operation and maintenance of production facilities.

On the lands described below:

For the purpose of (reasons):

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

**Oil and Gas Leasing Stipulations****CONTROLLED SURFACE USE STIPULATION (R2-FS-2820-16 (92))**

This stipulation will be included where requirements under the Standard Lease Terms are not adequate to protect the resources. The following is a partial list of the types of activities and management objectives that will require this stipulation to be included in the lease.

- Visual Resource Management (VRM) Condition Classes II, III, IV
- Riparian Areas
- Areas of visibility to the visiting public
- Areas of known significant cave locations.

Additional stipulation maps provided by the office include:

[CODE BH_ML_CSU]	Mineral leasing
[CODE BH_SI_CSU]	Scenic integrity
[CODE BH11]	Visual quality

R2-FS-2820-16 (92)

Serial No. \_\_\_\_\_

**CONTROLLED SURFACE USE STIPULATION**

Surface occupancy or use is subject to the following special operating constraints.

On the lands described below:

For the purpose of:

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

**FLOODPLAIN AND WETLAND LEASE NOTICE (R2-FS-2820-17 (92))**

This stipulation will be included in all leases that contain floodplain and/or wetlands that meet the intent of Executive Order 11988 - Floodplain Management and Executive Order 11990 - Protection of Wetlands.

R2-FS-2820-17 (92)

Serial No. \_\_\_\_\_

**USDA - FOREST SERVICE  
FLOODPLAIN AND WETLAND LEASE NOTICE**

The lessee is hereby notified that this lease contains the riparian ecosystem (Management Area \_\_\_\_, Forest Plan, pages \_\_\_\_). The lands affected include:

All activities within this area may be precluded or highly restricted in order to comply with Executive Order 11988 - Floodplain Management and Executive Order 11990 - Protection of Wetlands, in order to preserve and restore or enhance the natural and beneficial values served by floodplains and wetlands.

Management Area \_\_\_\_, the riparian ecosystem, will be managed by the Forest Service to protect from conflicting uses in order to provide healthy, self-perpetuating plant and water communities that will have optimum diversity and density of understory and overstory vegetation. Occupancy and use of lands within Management Area \_\_\_\_ proposed in a Surface Use Plan of Operations will be considered in an environmental analysis done to identify the mitigation measures necessary to protect the riparian area. Measures such as road design, well pad size and location or directional drilling, will be made part of the permit authorizing the activity.

Bureau of Reclamation, MT



QP-135

(02/91)

**SPECIAL STIPULATION - BUREAU OF RECLAMATION**

To avoid interference with recreation development and/or impacts to fish and wildlife habitat and to assist in preventing damage to any Bureau of Reclamation dams, reservoirs, canals, ditches, laterals, tunnels, and related facilities, and contamination of the water supply therein, the lessee agrees that the following conditions shall apply to all exploration and developmental activities and other operation of the works thereafter on lands covered by this lease:

[CODE BREC1] 1. Prior to commencement of any surface-disturbing work including drilling, access road work, and well location construction, a surface use and operations plan will be filed with the appropriate officials. A copy of this plan will be furnished to the Regional Director, Great Plains Region, Bureau of Reclamation, P.O. Box 36900, Billings, MT 59107-6900, for review and consent prior to approval of the plan. Such approval will be conditioned on reasonable requirements needed to prevent soil erosion, water pollution, and unnecessary damages to the surface vegetation and other resources, including cultural resources, of the United States, its lessees, permittees, or licensees, and to provide for the restoration of the land surface and vegetation. The plan shall contain provisions as the Bureau of Reclamation may deem necessary to maintain proper management of the water, recreation, lands, structures, and resources, including cultural resources, within the prospecting, drilling, or construction area.

Drilling sites for all wells and associated investigations such as seismograph work shall be included in the above-mentioned surface use and operation plan.

If later explorations require departure from or additions to the approved plan, these revisions or amendments, together with a justification statement for proposed revisions, will be submitted for approval to the Regional Director, Great Plains Region, Bureau of Reclamation, or his authorized representative.

Any operations conducted in advance of approval of an original, revised, or amended prospecting plan, or which are not in accordance with an approved plan constitute a violation of the terms of this lease. The Bureau of Reclamation reserves the right to close down operations until such corrective action, as is deemed necessary, is taken by the lessee.

2. No occupancy of the surface of the following excluded areas is authorized by this lease. It is understood and agreed that the use of these areas for Bureau of Reclamation purposes is superior to any other use. The following restrictions apply only to mineral tracts located within the boundary of a Bureau of Reclamation project where the United States owns 100 percent of the fee mineral interest.

- a. Within 500 feet on either side of the centerline of any and all roads or highways within the leased area.
- b. Within 200 feet on either side of the centerline of any and all trails within the leased area.
- c. Within 500 feet of the normal high-water line of any and all live streams in the leased area.
- d. Within 400 feet of any and all recreation developments within the leased area.
- e. Within 400 feet of any improvements either owned, permitted, leased, or otherwise authorized by the Bureau of Reclamation within the leased area.
- f. Within 200 feet of established crop fields, food plots, and tree/shrub plantings within the leased area.
- g. Within 200 feet of slopes steeper than a 2:1 gradient within the leased area.
- h. Within established rights-of-way of canals, laterals, and drainage ditches within the leased area.
- i. Within a minimum of 500 feet horizontal from the centerline of the facility or 50 feet from the outside toe of the canal, lateral, or drain embankment, whichever distance is greater, for irrigation facilities without clearly marked rights-of-way within the leased area.

## BOR GP-2100 BLGS

j. Providing that appropriate environmental compliance measures can be ensured, and providing further that Reclamation project works and other public interests can be protected, Reclamation may consider, on a case-by-case basis, waiving the requirements specified in Section 2 hereof. HOWEVER, LESSEES ARE ADVISED THAT OBTAINING SUCH A WAIVER CAN BE A DIFFICULT, TIME CONSUMING, AND COSTLY PROCESS WITH NO GUARANTEE THAT RECLAMATION WILL GRANT THE REQUESTED WAIVER.

3. No occupancy of the surface or surface drilling will be allowed in the following areas. In addition, no directional drilling will be allowed that would intersect the subsurface zones delineated by a vertical plane in these areas. The following restrictions apply only to mineral tracts located within the boundary of a Bureau of Reclamation project where the United States owns 100% of the fee mineral interest.

a. Within 1,000 feet of the maximum water surface, as defined in the Standard Operating Procedures (SOP), of any reservoirs and related facilities located within the leased area.

b. Within 2,000 feet of dam embankments and appurtenance structures such as spillway structures, outlet works, etc.

c. Within one-half (1/2) mile horizontal from the centerline of any tunnel within the leased area.

d. Providing that appropriate environmental compliance measures can be ensured, and providing further that Reclamation project works and other public interests can be protected, Reclamation may consider, on a case-by-case basis, waiving the requirements specified in Section 3 hereof. HOWEVER, LESSEES ARE ADVISED THAT OBTAINING SUCH A WAIVER CAN BE A DIFFICULT, TIME CONSUMING, AND COSTLY PROCESS WITH NO GUARANTEE THAT RECLAMATION WILL GRANT THE REQUESTED WAIVER.

4. The distances stated in items 2 and 3 above are intended to be general indicators only. The Bureau of Reclamation reserves the right to revise these distances as needed to protect Bureau of Reclamation facilities.

5. The use of explosives in any manner shall be so controlled that the works and facilities of the United States, its successors and assigns, will in no way be endangered or damaged. In this connection, an explosives use plan shall be submitted to and approved by the Regional Director, Great Plains Region, Bureau of Reclamation, or his authorized representative.

6. The lessee shall be liable for all damage to the property of the United States, its successors and assigns, resulting from the exploration, development, or operation of the works contemplated by this lease, and shall further hold the United States, its successors and assigns, and its officers, agents, and employees, harmless from all claims of third parties for injury or damage sustained or in any way resulting from the exercise of the rights and privileges conferred by this lease.

7. The lessee shall be liable for all damage to crops or improvements of any entryman, nonmineral applicant, or patentee, their successors and assigns, caused by or resulting from the drilling or other operations of the lessee, including reimbursement of any entryman or patentee, their successors and assigns, for all construction, operation, and maintenance charges becoming due on any portion of their said lands damaged as a result of the drilling or other operations of the lessee.

8. In addition to any other bond required under the provisions of this lease, the lessee shall provide such bond as the United States may at any time require for damages which may arise under the liability provisions of sections six (6) and seven (7) above.

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Date

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Signature of Lessee

BOR GP-2100 BLGS

Form 3109-1  
(December 1972)  
(Formerly 3103-1)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

LEASE STIPULATIONS  
BUREAU OF RECLAMATION

The lessee agrees to maintain, if required by the lessor during the period of this lease, including any extension thereof, an additional bond with qualified sureties in such sum as the lessor, if it considers that the bond required under Section 2(a) is insufficient, may at any time require:

(A) to pay for damages sustained by any reclamation homestead entryman to his crops or improvements caused by drilling or other operations of the lessee, such damages to include the reimbursement of the entryman by the lessee, when he uses or occupies the land of any homestead entryman, for all construction and operation and maintenance charges becoming due during such use or occupation upon any portion of the land so used and occupied;

(b) to pay any damage caused to any reclamation project or water supply thereof by the lessee's failure to comply fully with the requirements of this lease; and

(c) to reimburse any non-mineral applicant, entryman, purchaser under the Act of May 18, 1930 (46 Stat. 367), or patentee for all damages to crops or to taxable improvements caused by drilling or other prospecting operations, where any of the lands covered by this lease are embraced in any non-mineral application, entry, or patent under rights initiated prior to the date of this lease, with a reservation of the oil deposits, to the United States pursuant to the Act of July 17, 1914 (38 Stat. 809).

As to any lands covered by this lease within the area of any Government reclamation project, or in proximity thereto, the lessee shall take such precautions as required by the Secretary to prevent any injury to the lands susceptible to irrigation under such project or to the water supply thereof; provided that drilling is prohibited on any constructed works or right-of-way of the Bureau of Reclamation, and provided, further, that there is reserved to the lessor, its successors and assigns, the superior and prior right at all times to construct, operate, and maintain dams, dikes, reservoirs, canals, wasteways, laterals, ditches, telephone and telegraph lines, electric transmission lines, roadways, appurtenant irrigation structures, and reclamation works, in which construction, operation, and maintenance, the lessor, its successors and assigns, shall have the right to use any or all of the lands herein described without making compensation therefor, and shall not be responsible for any damage from the presence of water thereon or on account of ordinary, extraordinary, unexpected, or unprecedented floods. That nothing shall be done under this lease to increase the cost of, or interfere in any manner with, the construction, operation, and maintenance of such works. It is agreed by the lessee that, if the construction of any or all of said dams, dikes, reservoirs, canals, wasteways, laterals, ditches, telephone or telegraph lines, electric transmission lines, roadways, appurtenant irrigation structures or reclamation works across, over, or upon said lands should be made more expensive by reason of the existence of the improvements and workings of the lessee thereon, said additional expense is to be estimated by the

Secretary of the Interior, whose estimate is to be final and binding upon the parties hereto, and that within thirty (30) days after demand is made upon the lessee for payment of any such sum, the lessee will make payment thereof to the United States, or its successors, constructing such dams, dikes, reservoirs, canals, wasteways, laterals, ditches, telephone and telegraph lines, electric transmission lines, roadways, appurtenant irrigation structures, or reclamation works, across, over, or upon said lands; provided, however, that subject to advance written approval by the United States, the location and course of any improvements or works and opportunities may be changed by the lessee; provided, further, that the reservations, agreements, and conditions contained in the within lease shall be and remain applicable notwithstanding any change in the location or course of said improvements or works of lessee. The lessee further agrees that the United States, its officers, agents, and employees, and its successors and assigns shall not be held liable for any damage to the improvements or workings of the lessee resulting from the construction, operation, and maintenance of any of the works hereinabove enumerated. Nothing in this paragraph shall be construed as in any manner limiting other reservations in favor of the United States contained in this lease.

THE LESSEE FURTHER AGREES That there is reserved to the lessor, its successors and assigns, the prior right to use any of the lands herein leased, to construct, operate, and maintain dams, dikes, reservoirs, canals, wasteways, laterals, ditches, telephone and telegraph lines, electric transmission lines, roadways, or appurtenant irrigation structures, and also the right to remove construction materials therefrom, without any payment made by the lessor or its successors for such right, with the agreement on the part of the lessee that if the construction of any or all of such dams, dikes, reservoirs, canals, wasteways, laterals, ditches, telephone and telegraph lines, electric transmission lines, roadways, or appurtenant irrigation structures across, over, or upon said lands or the removal of construction materials therefrom, should be made more expensive by reason of the existence of improvements or workings of the lessee thereon, such additional expense is to be estimated by the Secretary of the Interior, whose estimate is to be final and binding upon the parties hereto, and that within thirty (30) days after demand is made upon the lessee for payment of any such sum, the lessee will make payment thereof to the United States or its successors constructing such dams, dikes, reservoirs, canals, wasteways, laterals, ditches, telephone and telegraph lines, electric transmission lines, roadways, or appurtenant irrigation structures across, over, or upon said lands or removing construction materials therefrom. The lessee further agrees that the lessor, its officers, agents, and employees and its successors and assigns shall not be held liable for any damage to the improvements or workings of the lessee resulting from the construction, operation, and maintenance of any of the works herein above enumerated. Nothing contained in this paragraph shall be construed as in any manner limiting other reservations in favor of the lessor contained in this lease.

(Signature of Lessee)

(Continued on reverse)

# Bridger-Teton National Forest

Bridger -Teton Calibration Area Stipulations

BRIDGER-TETON NATIONAL FOREST

Cross Reference to Oil & Gas Leasing (FY94)

NOT AVAILABLE FOR LEASING - GIS MAP 1

ITEM OF CONCERN	GIS FILE	MITIGATING MEASURES	ACTION
<p>WILDERNESS is any portion of the parcel within MA 91 (Teton Wilderness); MA 92 (Gros Ventre Wilderness); or MA 96 (Bridger Wilderness) DFC's 6A-6D) (p.189)</p> <p>KRUG MEMORANDUM is any portion of the parcel north of the 11<sup>th</sup> Standard parallel (p. 263)</p>	<p>nlwild.t [CODE BT_ 10]</p>	<p>Designated wilderness are legislatively withdrawn from leasing. Unless BLM can identify unavailable lands using a surveyed wilderness boundary, unavailable lands must be identified using public land survey lines. For example, available lands within a 1/41/4 section containing wilderness lands will not be available for leasing until the wilderness boundary has been surveyed.</p> <p>Within MA 61, lands north of the 11<sup>th</sup> Standard Parallel were withheld indefinitely from leasing by the Krug Memorandum of 1947.</p>	
<p>SHOAL CREEK WSA is any portion of the parcel within the Shoal Creek Wilderness Study Area (MA 93) designated by the 1984 Wyoming Wilderness Act (p.196)</p>	<p>nlwild.t [CODE BT_ 19]</p>	<p>The Shoal Creek WSA is legislatively withdrawn from leasing pending completion of a wilderness study during a future Forest Plan Revision. Unless BLM can identify unavailable lands using a surveyed boundary, unavailable lands must be identified using public land survey lines. For example, available lands within a 1.41.4 section containing wilderness study area lands will not be available for leasing until the wilderness study area lands will not be available for leasing until the wilderness study area boundary has been surveyed.</p>	
<p>DFC/MA COMBINATIONS is any portion of the parcel within: DFC 2A MA12 (p. 217); MA13 (p.319); MA 35 (p. 299); MA 41 (p. 277); MA 44 (p. 271); MA 47 (p. 287); or DFC 2B MA 35 (p. ), MA 41 (p. 277); MA 44 (p. ), or MA 62 (p. 265); or DFC 4 MA 32, (p. ); or DFC 9A MA 41, (p. ); or DFC 9B MA 41, (p. 277)</p>	<p>nl dfc.t [CODES BT4, BT5, BT8]</p>		

NOT AVAILABLE FOR LEASING - GIS MAP 1 (continued)

ITEM OF CONCERN	GIS FILE	MITIGATING MEASURES	ACTION
<p>MA 32 is any portion of the parcel within the DFC 10 area just south of Alpine (p. )</p>	<p>no GIS</p>	<p>This area is not available for leasing. Unless BLM can identify unavailable lands using a surveyed boundary, unavailable lands must be identified using public land survey lines. For example, available lands within a 1/41/4 section containing unavailable lands will not be available for leasing unless the DFC and/or MA boundary has been surveyed.</p>	
<p>PERIODIC SPRINGS is any portion of the parcel within the DFC 4 area surrounding Periodic Springs and its recharge area, within MA's 33 and 34 (p. 301, p. )</p>	<p>nla.t [CODE BT_11]</p>	<p>This area is not available for leasing. Unless BLM can identify unavailable lands using a surveyed boundary, unavailable lands must be identified using public land survey lines. For example, available lands within a 1/41/4 section containing unavailable lands will not be available for leasing unless the DFC and/or MA boundary has been surveyed.</p>	
<p>KENDALL WARM SPRINGS is any portion of the parcel within the 1200 acre area affected by the Kendall Warm Springs withdrawal standard, within MA 72? (p. 287, and ROD Attachment One, p. 4-5)</p>	<p>no GIS</p>	<p>This area is not available for leasing. Unavailable lands will be identified using public land survey lines.</p>	
<p>SWEENEY LAKES is any portion of the parcel within the DFC 2A area around Sweeney Lakes, in MA 73? (p. 289)</p>	<p>nlb.t [CODE BT_9]</p>	<p>This area is not available for leasing. Unless BLM can identify unavailable lands using a surveyed boundary, unavailable lands must be identified using public land survey lines. For example, available lands within a 1/41/4 section containing unavailable lands will not be available for leasing unless the DFC and/or MA boundary has been surveyed.</p>	
<p>MA 75 is any portion of the parcel within the DFC 2A areas at the head of Big Sandy Creek and at the south end of the Wind River Range? (p. 293)</p>	<p>nlb.t</p>	<p>These areas are not available for leasing. Unless BLM can identify unavailable lands using a surveyed boundary, unavailable lands must be identified using public land survey lines. For example, available lands within a 1/41/4 section containing unavailable lands will not be available for leasing unless the DFC and/or MA boundary has been surveyed.</p>	

**BRIDGER-TETON NATIONAL FOREST**

**Cross Reference to Oil & Gas Leasing (FY94)**

**NOT AVAILABLE FOR LEASING - GIS MAP 1**

ITEM OF CONCERN	GIS FILE	MITIGATING MEASURES	ACTION
<p>WILDERNESS is any portion of the parcel within MA 91 (Teton Wilderness); MA 92 (Gros Ventre Wilderness); or MA 96 (Bridger Wilderness) DFC's 6A-6D) (p.189)</p>	<p>n\wild.t</p>	<p>Designated wilderness are legislatively withdrawn from leasing. Unless BLM can identify unavailable lands using a surveyed wilderness boundary, unavailable lands must be identified using public land survey lines. For example, available lands within a 1/41/4 section containing wilderness lands will not be available for leasing until the wilderness boundary has been surveyed.</p>	
<p>KRUG MEMORANDUM is any portion of the parcel north of the 11<sup>th</sup> Standard parallel (p. 263)</p>	<p>krug.t [CODE BT_ 19]</p>	<p>Within MA 61, lands north of the 11<sup>th</sup> Standard Parallel were withheld indefinitely from leasing by the Krug Memorandum of 1947.</p>	
<p>SHOAL CREEK WSA is any portion of the parcel within the Shoal Creek Wilderness Study Area (MA 93) designated by the 1984 Wyoming Wilderness Act (p. 196)</p>	<p>n\wild.t</p>	<p>The Shoal Creek WSA is legislatively withdrawn from leasing pending completion of a wilderness study during a future Forest Plan Revision. Unless BLM can identify unavailable lands using a surveyed boundary, unavailable lands must be identified using public land survey lines. For example, available lands within a 1.41.4 section containing wilderness study area lands will not be available for leasing until the wilderness study area lands will not be available for leasing until the wilderness study area boundary has been surveyed.</p>	
<p>DFC/MA COMBINATIONS is any portion of the parcel within: DFC 2A MA12 (p. 217), MA13 (p.319), MA 35 (p.299), MA 41 (p. 277), MA 44 (p. 271); MA 47 (p. 287); or DFC 2B MA 35 (p. ), MA 41 (p. 277), MA 44 (p. ), or MA 62 (p. 265); or DFC 4 MA 32, (p. ); or DFC 9A MA 41, (p. ); or DFC 9B MA 41, (p. 277)</p>	<p>nldfc.t</p>		

ADMINISTRATIVE NO SURFACE OCCUPANCY STIPULATION AREAS - GIS MAP 1 <anso> (continued)			ACTION
ITEM OF CONCERN	GIS FILE	MITIGATING MEASURES	
MA 22 and MA 49 Is any portion of the parcel located within the bighorn sheep area which straddles the boundary between the two MA's? (refer to O&G Leasing EA's for MA's 22/23 and MA 49)	map\lbs [CODE BT_18]	This area requires a No Surface Occupancy Stipulation, which prohibits surface occupancy, in order to protect crucial wildlife habitat.	
MA 23 Is any portion of the parcel within the elk feedground located along the Hoback River? (refer to O&G Leasing EA for MA's 22/23)	no GIS	This area requires a No Surface Occupancy Stipulation, which prohibits surface occupancy, in order to protect the elk feedground.	
MA 26 Is any portion of the parcel within the bighorn sheep area in MA 26? (p. 313)	map\lbs	This area requires a No Surface Occupancy Stipulation, which prohibits surface occupancy, in order to protect important bighorn sheep habitat.	
COMMISSARY RIDGE is any portion of the parcel located in DFC 12 within 1 mile of the crest of Commissary Ridge, in MA 11 or MA 12? (p. 315, O&G Leasing EA for MA 12)	nso6.t	Areas affected which are available for leasing require a No Surface Occupancy Stipulation, which prohibits surface occupancy, in order to protect DFC 12 areas near Commissary Ridge.	
SALT RIVER OR WYOMING RANGE CRESTS Is any portion of the parcel within 0.5 miles of the crests of the Salt River or Wyoming Ranges in MA's 11, 22, 23, 24, 25, 26, 31, 32, 33, 34, 35, 48, or 49? (p. )	no GIS [CODE BT_6]	Areas affected which are available for leasing require a No Surface Occupancy Stipulation, which prohibits surface occupancy. The one-mile-wide strip along the crests is protected in order to maintain the quality of recreation experiences, including the National Recreational Trail along the crest of the Wyoming Range.	
WILD & SCENIC RIVERS Is any portion of the parcel within an area which requires a No Surface Occupancy Stipulation in order to protect watercourses eligible for designation? (refer to Forest Plan Amendment No. 2, p. )	no GIS	Areas identified require a No Surface Occupancy Stipulation, which prohibits surface occupancy, in order to protect watercourses eligible for designation.	
NATIONAL TRAILS Does any portion of the parcel contain designated or proposed National Recreational, Scenic or Historic Trails? (p. 141.)	no GIS	Trails affected require a No Surface Occupancy Stipulation, which prohibits surface occupancy, in order to maintain the quality of recreation experiences.	
RESEARCH NATURAL AREAS Is any portion of the parcel within a designed, proposed, or candidate Research National Area? (p. <fivaoma>	map\ma [CODE B_17]	Areas affected require a No Surface Occupancy Stipulation, which prohibits surface occupancy, in order to maintain the area in its natural condition.	





CONTROLLED SURFACE USE STIPULATION AREAS - GIS MAP 3 (continued)

ITEM OF CONCERN	GIS FILE	MITIGATING MEASURES	ACTION
MA 13 Is any portion of the parcel within crucial elk winter range located on Tump Ridge? (p. 319)	no GIS: D1 [CODE BT_14]	This area requires a Controlled Surface Use Stipulation. Impacts on wildlife are mitigated by requiring off-site production facilities.	
MA 21 Is any portion of the parcel within crucial elk winter range located on Raspberry Ridge? (p. 305)	map3csu21 [CODE BT_14]	This area requires a Controlled Surface Use Stipulation. Impacts on wildlife are mitigated by requiring off-site production facilities.	
MA 12 Is any portion of the parcel within DFC 12? (p. 245, and the Regional Forester's Conveyance Letter of 2/20/90, p. 18)	no GIS	This area requires a Controlled Surface Use Stipulation can be applied within all, parts, or none of DFC 12, as appropriate, in order to mitigate effects on wildlife.	Requires IDT

OTHER STIPULATION AREAS - GIS MAP 3

ITEM OF CONCERN	GIS FILE	MITIGATING MEASURES	ACTION
BRIDGER-TETON NATIONAL FOREST Does the parcel contain lands administered by the Bridger-Teton National Forest? (refer to Forest Plan Amendment No. 1, and Appendix B, p. 3)	no GIS	The Stipulation for Lands Administered by the Bridger-Teton National Forest is required. The USDA Standard Stipulation also is required.	
TETON NATIONAL FOREST Is any portion of the parcel within the Teton National Forest? (Appendix B, p. 12-13)	Jhasnl [CODE BT_Jhasnl]	The Jackson Hole Area Stipulation is required for all lands south of the 11 <sup>th</sup> Standard Parallel, within the Teton National Forest, which are available for leasing, the wording for this stipulation was established by the Krug Memorandum of 1947.	
PALISADES WSA Is any portion of the parcel within the Palisades Wilderness Study Area (MA's 95 and 95)? (p. 257, Appendix B, p. 10-11)	pal [CODE BT_12]	The Palisades Conditional No Surface Occupancy Stipulation and the Palisades Coordinated Exploration Stipulation are required for the Palisades Wilderness Study Area in order to protect special resource values and maintain eligibility for Congressional designation as a wilderness.	
GRIZZLY BEAR Is any portion of the parcel within DFC 7A or DFC 7B, in MA's 45, 61, or 62? (p. 204, 210-211, Appendix B, p. 8-9)	griz [CODE BT_21]	This area requires the Grizzly Bear Conditional No Surface Occupancy Stipulation, to ensure the continued recovery of the grizzly bear if it is delisted.	Not standard plot

[CODE BT\_22 NSO undifferentiated]

LEASE NOTICE AREAS - GIS MAP 4 and Others

ITEM OF CONCERN	GIS FILE	MITIGATING MEASURES	ACTION
<b>RESTRICTED OR PROHIBITED ACCESS</b> Would access to this parcel need to cross any area which is not available for leasing, or which is available for leasing only what technical no surface occupancy, special "lakes", no surface occupancy, no surface occupancy, or conditional no surface occupancy stipulation? (refer to Forest Plan Amendments No. 1)	no GIS	Review the Forest-wide, Management Area, and Desired Future Condition direction for the area involved, to determine what restrictions and conditions. If any, apply to new road construction. If standards may preclude, or will preclude road access to a well location, or if steep slopes, unsuitable soils or landslides surround the area, use a Lease Notice for Difficult or impossible Access to make the leaseholder aware that road access to the parcel may be difficult or impossible.	
<b>VISUAL QUALITY OBJECTIVES</b> Have visual quality objectives been adopted? (refer to Forest Plan Amendment No. 1)	no GIS	Consider whether the Lease Notice for Visual Quality Objectives needs to be required for this parcel.	
<b>THREATENED OR ENDANGERED SPECIES</b> Are there any concerns related to a Threatened or Endangered Species? (refer to Forest Plan Amendment No. 1)	map4birds	Consider whether the Lease Notice for Threatened and Endangered Species needs to be required for this parcel. Identify the species of concern on the notice, i.e., grizzly bear, bald eagle, peregrine falcon, trumpeter swan, or whooping crane.	
<b>SENSITIVE SPECIES</b> Are there any concerns related to a Sensitive Species? (refer to Forest Plan Amendment No.1)	no GIS	Consider whether the Lease Notice for Sensitive Species needs to be required for this parcel. Identify the species of concern on the notice.	
<b>OLD GROWTH</b> Does any portion of the parcel contain old growth stand(s) which need to have old growth management emphasized? (p. 129, O&G Leasing EA for MA 12)	no GIS	Consider whether the Lease Notice for Old Growth Stands needs to be required for this parcel.	Requires IDT validation

OTHER CONCERNS - DETERMINE WHETHER A FOREST PLAN AMENDMENT IS NEEDED

ITEM OF CONCERN	GIS FILE	MITIGATING MEASURES	ACTION
<b>CULTURAL, HISTORICAL, OR PALEONTOLOGICAL RESOURCES</b> Are there any special concerns that are not addressed by the standard lease terms?	proprietary	Consider whether a special lease notice or stipulation is needed.	In GIS, only accessible by Forest Archeologist
<b>COORDINATION</b> Is any portion of the parcel within 1 mile of lands administered or regulated by another FS unit or another agency?	no GIS	Confer with any adjoining unit or other agencies to document management needs and/or coordinate leasing analyses.	

OTHER CONCERNS - DETERMINE WHETHER A FOREST PLAN AMENDMENT IS NEEDED (continued)

ITEM OF CONCERN	GIS FILE	MITIGATING MEASURES	ACTION
<p>NATIONAL SCENIC BYWAYS Has any portion of the parcel been designated as a National Scenic Byway? (ROD Attachment One, p. 2)</p>	no GIS	Consider whether a special lease notice or stipulation is needed. Consider with any adjoining unit or other agencies to document management needs and/or coordinate leasing analyses.	Required IDT
<p>GRAND TETON NATIONAL PARK VISUAL QUALITY STANDARD Is any portion of the parcel visible from the Signal Mountain Overlook? Can any portion of the parcel be seen by boaters along the Snake River or motorist along roads within Grand Teton National Park? Is the parcel within MA's 43, 61, or 62? (ROD Attachment One, p. 4)</p>	no GIS	Consider whether a special lease notice or stipulation is needed. Consider with any adjoining unit or other agencies to document management needs and/or coordinate leasing analyses.	Required IDT
<p>OTHER VISUAL QUALITY CONCERNS Are there any concerns that are not addressed?</p>	no GIS	Consider whether a special lease notice or stipulation is needed.	Required IDT
<p>SPECIAL AREAS (NATIONAL LANDMARKS) Does an existing or proposed National Natural Landmark occur within any portion of the parcel? (48, 142)</p>	no GIS	Consider whether a special lease notice or stipulation is needed in order to preserve the integrity of the landmark.	Required IDT
<p>WILD &amp; SCENIC RIVERS Does the parcel contain water courses eligible for designation or is the parcel located very near water courses eligible for designation? (refer to Forest Plan Amendment No. 2, p. )</p>	no GIS	Consider whether a special lease notice or stipulation is needed.	Required IDT
<p>OTHER CONCERNS Are there any other concerns or possible cumulative effects not mentioned above?</p>	no GIS	Consider whether a special lease notice or stipulation is needed.	Requires IDT

ADMINISTRATIVE NO SURFACE OCCUPANCY STIPULATION AREAS - GIS MAP 1 <anso> (Continued)

ITEM OF CONCERN	GIS FILE	MITIGATING MEASURES	ACTION
DFC 9A AND DFC 9B Is any portion of the parcel within DFC 9A or DFC 9B, except in MA's 41 and 73? (p. 224, 229, 277, and 289)	nsodfc.t [CODES BT-3, BT_4]	These areas require a No Surface Occupancy Stipulation, which prohibits surface occupancy, in order to protect campgrounds, other developed recreational sites, special use recreation areas, and administrative sites.	
MA 22 Is any portion of the parcel within the DFC 2B area located along the Hoback River? (p. 275)	nso3.t	This area requires a No Surface Occupancy Stipulation, which prohibits surface occupancy, in order to maintain the quality of recreation experiences.	
MA's 33 AND 34 Is any portion of the parcel within DFC 4, except the DFC 4 area surrounding Periodic Springs? (p. 181, 301, )	nsodfc4.t [CODE BT-4a]	This area requires a No Surface Occupancy Stipulation, which prohibits surface occupancy, in order to protect quality water quality.	
MA 72 Is any portion of the parcel within the DFC 2B, DFC 9A, or DFC 9B areas near New Fork Lakes, that are not within 1000 feet of the shorelines? (p. 287, Appendix B p. 7)	nso3.t	This area requires a No Surface Occupancy Stipulation, which prohibits surface occupancy, in order to maintain the quality of recreation experiences and protect developed sites.	
MA 73 Is any portion of the parcel within: the DFC 2A area near Fremont Lakes, that is not within 1000 feet of the shoreline; the DFC 2B areas near Fremont and Boulder Lakes, that are not within 1000 feet of the shorelines; or the DFC 9A and DFC 9B areas near Half Moon and Burnt Lakes, that are not within 1000 feet of the shorelines? (p. 289, Appendix B, p. 7)?	No GIS [CODE BT-7] [CODE BT-2]	This area requires a No Surface Occupancy Stipulation, which prohibits surface occupancy, in order to maintain the quality of recreation experiences and protect developed sites.	
MA 75 Is any portion of the parcel within the DFC 2A area located west of Pool Creek? (P. 293)	nso3.t	This area requires a No Surface Occupancy Stipulation, which prohibits surface occupancy, in order to maintain the quality of recreation experiences.	
IDENTIFIED CRUCIAL WINTER RANGES Is any portion of the parcel located within: MA 12 - Crucial elk winter range on Absaroka Ridge, west of Mahogany Ridge (p. 317); <map\lw12> or MA 33 - Crucial winter ranges along the Afton Front (p. 301); <map\lwaf> or MA 34 - Crucial winter ranges along the Afton Front (p. 303); <map\lwaf> or MA 41 - Crucial elk, deer, and moose winter ranges along the Snake and Hoback Rivers (p. 277); <mat\lw41> or MA 47 - Crucial winter ranges (p. 281); <map\lw47> or MA 48 - Crucial elk, deer, and moose winter ranges along the Snake and Hoback Rivers; or in a designated area surrounding a bald eagle nesting territory (p. 283)? <map\lw48>	map\lw12 map\lw47	This area requires a No Surface Occupancy Stipulation, which prohibits surface occupancy, in order to protect crucial big game winter ranges.	

Buffalo, WY BLM

## **APPENDIX A**

### **Wyoming BLM Mitigation Guidelines for Surface-disturbing and Disruptive Activities**

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#### **INTRODUCTION**

These guidelines are primarily for the purpose of attaining statewide consistency in how requirements are determined for avoiding and mitigating environmental impacts and resource and land use conflicts. Consistency in this sense does not mean that identical requirements would be applied for all similar types of land use activities that may cause similar types of impacts. Nor does it mean that the requirements or guidelines for a single land use activity would be identical in all areas.

There are two ways the mitigation guidelines are used in the RMP EIS process: (1) as part of the planning criteria in developing the RMP alternatives, and (2) in the analytical processes of both developing the alternatives and analyzing the impacts of the alternatives. In the first case, an assumption is made that any one or more of the mitigations will be appropriately included as conditions of relevant actions being proposed or considered in each alternative. In the second case, the mitigations are used (1) to develop a baseline for measuring and comparing impacts among the alternatives; (2) to identify other actions and alternatives that should be considered, and (3) to help determine whether more stringent or less stringent mitigations should be considered.

The EIS for the RMP does not decide or dictate the exact wording or inclusion of these guidelines. Rather, the guidelines are used in the RMP EIS process as a tool to help develop the RMP alternatives and to provide a baseline for comparative impact analysis in arriving at RMP decisions. These guidelines will be used in the same manner in analyzing activity plans and other site-specific proposals. These guidelines and their wording are matters of policy. As such, specific wording is subject to change primarily through administrative review, not through the RMP EIS process. Any further changes that may be made in the continuing refinement of these guidelines and any development of program-specific standard stipulations will be handled in another forum, including appropriate public involvement and input.

#### **PURPOSE**

The purpose of the "Wyoming BLM Mitigation Guidelines" are (1) to reserve, for the BLM, the right to modify the operations of all surface and other human presence disturbance activities as part of the statutory requirements for environmental protection, and (2) to inform a potential lessee, permittee, or operator of the requirements that must be met when using BLM-administered public lands. These guidelines have been written in a format that will allow for (1) their direct use as stipulations, and (2) the addition of specific or specialized mitigation following the submission of a detailed plan of development or other project proposal, and an environmental analysis.

Those resource activities or programs currently without a standardized set of permit or operation stipulations can use the mitigation guidelines as stipulations or as conditions of approval, or as a baseline for developing specific stipulations for a given activity or program.

Because use of the mitigation guidelines was integrated into the RMP EIS process and will be integrated into the site-specific environmental analysis process, the application of stipulations or mitigation requirements derived through the guidelines will provide more consistency with planning decisions and plan implementation than has occurred in the past. Application of the mitigation guidelines to all surface and other human presence disturbance activities concerning BLM-administered public lands and resources will provide more uniformity in mitigation than has occurred in the past.

## MITIGATION GUIDELINES

### 1. Surface Disturbance Mitigation Guideline

Surface disturbance will be prohibited in any of the following areas or conditions. Exception, waiver, or modification of this limitation may be approved in writing, including documented supporting analysis, by the authorized officer.

- a. Slopes in excess of 25 percent. [CODE B1]
- b. Within important scenic areas (Class I and II Visual Resource Management Areas).
- c. Within 500 feet of surface water and/or riparian areas. [CODES BU\_IN1\_LAK, BU\_IN1\_PON, BU\_PONDS\_P  
BU\_IN1\_P\_1, BU\_IN1\_MAJ, BU\_LAKES\_E]
- d. Within either one-quarter mile or the visual horizon (whichever is closer) of historic trails. [CODE B4]
- e. Construction with frozen material or during periods when the soil material is saturated or when watershed damage is likely to occur.

### Guidance

The intent of the SURFACE DISTURBANCE MITIGATION GUIDELINE is to inform interested parties (potential lessees, permittees, or operators) that when one or more of the five (1a through 1e) conditions exist, surface-disturbing activities will be prohibited unless or until a permittee or his designated representative and the surface management agency (SMA) arrive at an acceptable plan for mitigation of anticipated impacts. This negotiation will occur prior to development.

Specific criteria (e.g., 500 feet from water) have been established based upon the best information available. However, such items as geographical areas and seasons must be delineated at the field level.

Exception, waiver, or modification of requirements developed from this guideline must be based upon environmental analysis of proposals (e.g., activity plans, plans of development, plans of operation,



applications for permit to drill) and, if necessary, must allow for other mitigation to be applied on a site-specific basis.

## **2. Wildlife Mitigation Guideline**

[CODE BU\_WT DEER]

! To protect important big game winter habitat, activities or surface use will not be allowed from November 15 through April 30 within certain areas encompassed by the authorization. The same criteria apply to defined big game birthing areas from May 1 through June 30.

Application of this limitation to operation and maintenance of a developed project must be based on environmental analysis of the operational or production aspects.

Exception, waiver, or modification of this limitation in any year may be approved in writing, including documented supporting analysis, by the authorized officer.

[CODE B8, B9, BU\_TLS\_GRO, BU\_TL\_RAP]

! To protect important raptor and/or sage and sharp-tailed grouse nesting habitat, activities or surface use will not be allowed from February 1 through July 31 within certain areas encompassed by the authorization. The same criteria apply to defined raptor and game bird winter concentration areas from November 15 through April 30.

Application of this limitation to operation and maintenance of a developed project must be based on environmental analysis of the operational or production aspects.

Exception, waiver, or modification of this limitation in any year may be approved in writing, including documented supporting analysis, by the authorized officer.

! No activities or surface use will be allowed on that portion of the authorization area identified within (legal description) for the purpose of protecting (e.g., sage/sharp-tailed grouse breeding grounds, and/or other species/activities) habitat.

Exception, waiver, or modification of this limitation in any year may be approved in writing, including documented supporting analysis, by the authorized officer.

! Portions of the authorized use area legally described as (legal description), are known or suspected to be essential habitat for (name) which is a threatened or endangered species. Prior to conducting any onsite activities, the lessee/permittee will be required to conduct inventories or studies in accordance with BLM and U.S. Fish and Wildlife Service guidelines to verify the presence or absence of this species. In the event that (name) occurrence is identified, the lessee/permittee will be required to modify operational plans to include the protection requirements of this species and its

habitat (e.g., seasonal use restrictions, occupancy limitations, facility design modifications).

### **Guidance**

The WILDLIFE MITIGATION GUIDELINE is intended to provide two basic types of protection: seasonal restriction (2a and 2b) and prohibition of activities or surface use (2c). Item 2d is specific to situations involving threatened or endangered species. Legal descriptions will ultimately be required and should be measurable and legally definable. There are no minimum subdivision requirements at this time. The area delineated can and should be defined as necessary, based upon current biological data, prior to the time of processing an application and issuing the use authorization. The legal description must eventually become a part of the condition for approval of the permit, plan of development, and/or other use authorization.

The seasonal restriction section identifies three example groups of species and delineates three similar time frame restrictions. The big game species bighorn sheep, all require protection of crucial winter range between November 15 and April 30. Elk and bighorn sheep also require protection from disturbance from May 1 through June 30, when they typically occupy distinct calving and lambing areas. Raptors include eagles, accipiters, falcons (peregrine, prairie, and merlin), buteos (ferruginous and Swainson's hawks), osprey, and burrowing owls. The raptors and sage and sharp-tailed grouse require nesting protection between February 1 and July 31. The same birds often require protection from disturbance from November 15 through April 30 while they occupy winter concentration areas.

Item 2c, the prohibition of activity or surface use, is intended for protection of specific wildlife habitat areas or values within the use area that cannot be protected by using seasonal restrictions. These areas or values must be factors that limit life-cycle activities (e.g., sage grouse strutting grounds, known threatened and endangered species habitat).

Exception, waiver, or modification of requirements developed from this guideline must be based upon environmental analysis of proposals (e.g., activity plans, plans of development, plans of operation, applications for permit to drill) and, if necessary, must allow for other mitigation to be applied on a site-specific basis.

### **3. Cultural Resource Mitigation Guideline**

When a proposed discretionary land use has potential for affecting the characteristics which qualify a cultural property for the National Register of Historic Places (National Register), mitigation will be considered. In accordance with Section 106 of the Historic Preservation Act, procedures specified in 36 CFR 800 will be used in consultation with the Wyoming State Historic Preservation Officer and the Advisory Council on Historic Preservation in arriving at determinations regarding the need and type of mitigation to be required.

### **Guidance**

The preferred strategy for treating potential adverse effects on cultural properties is "avoidance." If

avoidance involves project relocation, the new project area may also require cultural resource inventory. If avoidance is imprudent or unfeasible, appropriate mitigation may include excavation (data recovery), stabilization, monitoring, protection barriers and signs, or other physical and administrative measures.

Reports documenting results of cultural resource inventory, evaluation, and the establishment of mitigation alternatives (if necessary) shall be written according to standards contained in BLM Manuals, the cultural resource permit stipulations, and in other policy issued by the BLM. These reports must provide sufficient information for Section 106 consultation. Reports shall be reviewed for adequacy by the appropriate BLM cultural resource specialist. If cultural properties on, or eligible for, the National Register are located within these areas of potential impact and cannot be avoided, the authorized officer shall begin the Section 106 consultation process in accordance with the procedures contained in 36 CFR 800.

Mitigation measures shall be implemented according to the mitigation plan approved by the BLM authorized officer. Such plans are usually prepared by the land use applicant according to BLM specifications. Mitigation plans will be reviewed as part of Section 106 consultation for National Register eligible or listed properties. The extent and nature of recommended mitigation shall be commensurate with the significance of the cultural resource involved and the anticipated extent of damage. Reasonable costs for mitigation will be borne by the land use applicant. Mitigation must be cost effective and realistic. It must consider project requirements and limitations, input from concerned parties, and be BLM approved or BLM formulated.

Mitigation of paleontological and natural history sites will be treated on a case-by-case basis. Factors such as site significance, economics, safety, and project urgency must be taken into account when making a decision to mitigate. Authority to protect (through mitigation) such values is provided for in FLPMA, Section 102(a)(8). When avoidance is not possible, appropriate mitigation may include excavation (data recovery), stabilization, monitoring, protection barriers and signs, or other physical and administrative protection measures.

#### **4. Special Resource Mitigation Guideline**

To protect (resource value), activities or surface use will not be allowed (i.e., within a specific distance of the resource value or between date to date) in (legal description).

Application of this limitation to operation and maintenance of a developed project must be based on environmental analysis of the operational or production aspects.

Exception, waiver, or modification of this limitation in any year may be approved in writing, including documented supporting analysis, by the authorized officer.

Example Resource Categories (select or identify category and specific resource value):

- a. Recreation areas.
- b. Special natural history or paleontological features.
- c. Special management areas.
- d. Sections of major rivers.
- e. Prior existing rights-of-way.
- f. Occupied dwellings.
- g. Other (specify).

### **Guidance**

The SPECIAL RESOURCE MITIGATION GUIDELINE is intended for use only in site-specific situations where one of the first three general mitigation guidelines will not adequately address the concern. The resource value, location, and specific restrictions must be clearly identified. A detailed plan addressing specific mitigation and special restrictions will be required prior to disturbance or development and will become a condition for approval of the permit, plan of development, or other use authorization.

Exception, waiver, or modification of requirements developed from this guideline must be based upon environmental analysis of proposals (e.g., activity plans, plans of development, plans of operation, applications for permit to drill) and, if necessary, must allow for other mitigation to be applied on a site-specific basis.

### **5. No Surface Occupancy Guideline**

No Surface Occupancy will be allowed on the following described lands (legal description) because of (resource value).

Example Resource Categories (select or identify category and specific resource value):

- a. Recreation Areas (e.g., campgrounds, historic trails, national monuments).
- b. Major reservoirs/dams.
- c. Special management area (e.g., known threatened or endangered species habitat, areas suitable for consideration for wild and scenic rivers designation).
- d. Other (specify).

## Guidance

The NO SURFACE OCCUPANCY (NSO) MITIGATION GUIDELINE is intended for use only when other mitigation is determined insufficient to adequately protect the public interest and is the only alternative to "no development" or "no leasing." The legal description and resource value of concern must be identified and be tied to an NSO land use planning decision.

Waiver of, or exception(s) to, the NSO requirement will be subject to the same test used to initially justify its imposition. If, upon evaluation of a site-specific proposal, it is found that less restrictive mitigation would adequately protect the public interest or value of concern, then a waiver or exception to the NSO requirement is possible. The record must show that because conditions or uses have changed, less restrictive requirements will protect the public interest. An environmental analysis must be conducted and documented (e.g., environmental assessment, environmental impact statement, etc., as necessary) in order to provide the basis for a waiver or exception to an NSO planning decision. Modification of the NSO requirement will pertain only to refinement or correction of the location(s) to which it applied. If the waiver, exception, or modification is found to be consistent with the intent of the planning decision, it may be granted. If found inconsistent with the intent of the planning decision, a plan amendment would be required before the waiver, exception, or modification could be granted.

When considering the "no development" or "no leasing" option, a rigorous test must be met and fully documented in the record. This test must be based upon stringent standards described in the land use planning document. Since rejection of all development rights is more severe than the most restrictive mitigation requirement, the record must show that consideration was given to development subject to reasonable mitigation, including "no surface occupancy." The record must also show that other mitigation was determined to be insufficient to adequately protect the public interest. A "no development" or "no leasing" decision should not be made solely because it appears that conventional methods of development would be unfeasible, especially where an NSO restriction may be acceptable to a potential permittee. In such cases, the potential permittee should have the opportunity to decide whether or not to go ahead with the proposal (or accept the use authorization), recognizing that an NSO restriction is involved.

**Additional Buffalo Stipulations  
Supplied by the Buffalo Office**

	<b>Category</b>	<b>Description</b>
[CODE B21]	NSO	Bozeman Sites
[CODE B22 BU_NSO_BUD]	NSO	Budluv Site
[CODE B23 BU_NSO-AMS]	NSO	Amsden Creek
[CODE B24]	NSO	Bald Eagle
[CODE B25]	NSO	Eagle Casper
[CODE B26]	NSO	Eagle Roost
[CODE B27]	NSO	Fort Creek
[CODE B28 BU_NSO_GRO]	NSO	Grouse Roost
[CODE B29]	NSO	Mosier Gulch
[CODE B31]	NSO	Petrified Forest
[CODE B32]	NSO	Recreation Sites
[CODE B33]	NSO	Undifferentiated
[CODE B35]	CSU	Elk Winter Range
[CODE B38]	NSO	Soils
[CODE BU_1NI_USH]	NSO	(Undifferentiated)
[CODE BU_NSO_ED]	NSO	(Undifferentiated)
[CODE BU_NSO_GAR]	NSO	(Undifferentiated)
[CODE BU_NSO_NOR]	NSO	(Undifferentiated)
[CODE BU_NSO_OUT]	NSO	(Undifferentiated)

# Bureau of Reclamation Utah Office

**BUREAU OF RECLAMATION  
LAND USE STIPULATIONS  
for  
OIL AND GAS DRILL SITES AND ACCESS ROADS**

- \_\_\_1. Bureau of Reclamation's (Reclamation) Standard Lease Stipulations, form 3109-1, enclosed.
- \_\_\_2. All rights under this lease are subordinate to the right of the United States to flood and submerge the lands, permanently or intermittently, in connection with the construction, operation, and maintenance of \_\_\_\_\_ Dam and \_\_\_\_\_ Reservoir, \_\_\_\_\_ Project, \_\_\_\_\_.
- \_\_\_3. Lessee agrees that there will be no exploration, drilling, or any other activity associated with, or leading to, oil and gas production on any land under the administration or jurisdiction of Reclamation or in which Reclamation has an interest, unless written approval prior to any and all surface activities is obtained from Reclamation.
- \_\_\_4. All surface work performed by the Lessee on the lands shall be under the general supervision or standards provided by the Project Manager in charge of the project, and shall be subject to such other conditions and regulations as he (or she) may prescribe. The plans and location for all structures and appurtenances, and other surface work on the leased lands, shall be submitted to said Project Manager for approval in advance of commencement of any surface work on said leased lands. Reclamation, its employees and assigns shall have the right to enter the leased premises at anytime to inspect both the installation and the operational activities of the Lessee.
- \_\_\_5. Lessee agrees that there will be no surface occupancy within 1,500 horizontal feet of the toes and abutments of \_\_\_\_\_ Dam. This stipulation applies to ensure the integrity of the structure.
- \_\_\_6. Lessee agrees that there shall be no surface occupancy within 500 horizontal feet of the maximum water surface elevation of \_\_\_\_\_ Reservoir (maximum water surface elevation is \_\_\_\_\_ feet above mean sea level). This stipulation is to minimize the possibility of pollution and interference with the operation and maintenance of the Reservoir.
- \_\_\_7. Lessee agrees that there will be no surface occupancy within 200 horizontal feet of the centerline of any constructed or proposed Reclamation tunnel, canal, aqueduct, pipeline, lateral, drain, transmission lines, telephone lines, roadways, etc., under the administration or jurisdiction of Reclamation. Also, O&M roads shall not be used for access without prior approval from Reclamation.
- \_\_\_8. Lessee agrees that there will be no surface occupancy within 500 horizontal feet of any improved campground facility.



- \_\_\_9. All storage tanks shall be bermed to one and one-half times the capacity of the tank.
- \_\_\_10. All drilling operations shall be conducted in accordance with the applicable State laws relative to municipal water supplies.
- \_\_\_11. Lessee agrees that no surface disturbance shall occur until completion of an environmental analysis of the proposed drilling activity and coordination is complete with Reclamation. The analysis shall pay particular attention to federally listed threatened and endangered plant and animal species, protection of wetlands, cultural resources, and water quality-associated concerns.
- \_\_\_12. Where surface operations and facilities could reasonably be expected to discharge petroleum products into navigable waters and should oil or petroleum products be stored onsite and facilities have an aggregate storage of 1,320 gallons or more or single containers with the capacity of 660 gallons or more, a Spill Prevention Control and Counter Measure Plan shall be prepared and filed with the Environmental Protection Agency (EPA).
- \_\_\_13. At Lessee's expense, a cultural resource survey of lands to be disturbed must be completed prior to any surface disturbance. If, during operations, the Lessee, employees and assigns, discovers any historic or prehistoric ruin, monument, or site, or any object of antiquity subject to the Antiquities Act of June 8, 1906 (34 Stat. 225, 16 U.S.C., Sec. 431-433), and 43 CFR 3, work shall be suspended and the discovery promptly reported to Reclamation. When directed by Reclamation, the Lessee shall obtain, at his own expense, a qualified archeologist to examine and, if necessary, excavate and gather such ruins or objects. All objects of antiquity recovered from public lands are the property of the United States and shall be turned over to Reclamation.
- \_\_\_14. Existing fences to be crossed by the Lessee shall be braced and tied off prior to cutting so as to prevent slacking of the wire. The opening shall be protected as necessary during construction and well operation to prevent the escape of livestock. At completion of construction the fence shall be restored to at least its former state.
- \_\_\_15. Topsoil encountered during construction of the drill site area shall be stockpiled separately. The drill site area shall be covered with the stockpiled topsoil following completion of the drilling operations. The Lessee shall notify Reclamation at completion of drilling operations for reseeding requirements.
- \_\_\_16. Vegetation materials removed during construction shall be disposed of in such a manner that they do not detract from the aesthetics and do not accelerate erosion. While clearing the area of operations of vegetation and other grasses, the removed vegetation shall be placed in drainages, washes, and gullies, and shall be walked down by a crawler-type tractor. If no drainages exist in the immediate area, the vegetation shall be walked down in place.

- \_\_\_17. After construction has been completed, the affected area shall be left in an aesthetically pleasing condition. Abandoned sites must be rehabilitated to prevent erosion by scarifying, shaping, mulching, seeding, and fertilizing. Large rocks left as a result of construction shall not be piled or left in rows but shall be left so they do not detract from the scenic view of the area and do not hinder the movement of livestock or big game animals. Since conditions of disturbed areas are undetermined until the time of abandonment, additional requirements for rehabilitation may be required at that time by Reclamation and to Reclamation's satisfaction.
- \_\_\_18. Gravel materials for use in the construction of the drill pad sites and access roads shall be obtained from existing authorized gravel sources.
- \_\_\_19. Reserve pits shall be in cut and lined with a nylon-reinforced plastic liner. If a rock outcrop is encountered during construction of the pit a geotextile fiber liner shall be placed under the plastic liner.
- \_\_\_20. Reserve pits shall be fenced "stock tight" on all four sides during drilling operations and until the pit is backfilled.
- \_\_\_21. Portable chemical toilets shall be placed on location for all phases of drilling and surface facilities completion. All waste associated with drilling operations, and all garbage, debris, and metal containers shall be removed (not buried or burned) from the drill site area to a State-approved landfill. The drill site, at all times, shall be maintained and kept clean of all trash and debris.
- \_\_\_22. All above-ground structures shall be painted to blend with the natural surroundings as directed by Reclamation or the Bureau of Land Management (BLM).
- \_\_\_23. Construction crews shall not be allowed to reside in any developed campgrounds or any undeveloped areas within the boundaries of the Project.

[CODE UTREC4] NSO Water bodies, reservoirs

# Bureau of Reclamation Wyoming Office

GP-135

(02/91)

SPECIAL STIPULATION - BUREAU OF RECLAMATION

To avoid interference with recreation development and/or impacts to fish and wildlife habitat and to assist in preventing damage to any Bureau of Reclamation dams, reservoirs, canals, ditches, laterals, tunnels, and related facilities, and contamination of the water supply therein, the lessee agrees that the following conditions shall apply to all exploration and developmental activities and other operation of the works thereafter on lands covered by this lease:

1. Prior to commencement of any surface-disturbing work including drilling, access road work, and well location construction, a surface use and operations plan will be filed with the appropriate officials. A copy of this plan will be furnished to the Regional Director, Great Plains Region, Bureau of Reclamation, P.O. Box 36900, Billings, MT 59107-6900, for review and consent prior to approval of the plan. Such approval will be conditioned on reasonable requirements needed to prevent soil erosion, water pollution, and unnecessary damages to the surface vegetation and other resources, including cultural resources, of the United States, its lessees, permittees, or licensees, and to provide for the restoration of the land surface and vegetation. The plan shall contain provisions as the Bureau of Reclamation may deem necessary to maintain proper management of the water, recreation, lands, structures, and resources, including cultural resources, within the prospecting, drilling, or construction area.

Drilling sites for all wells and associated investigations such as seismograph work shall be included in the above-mentioned surface use and operation plan.

If later explorations require departure from or additions to the approved plan, these revisions or amendments, together with a justification statement for proposed revisions, will be submitted for approval to the Regional Director, Great Plains Region, Bureau of Reclamation, or his authorized representative.

Any operations conducted in advance of approval of an original, revised, or amended prospecting plan, or which are not in accordance with an approved plan constitute a violation of the terms of this lease. The Bureau of Reclamation reserves the right to close down operations until such corrective action, as is deemed necessary, is taken by the lessee.

2. No occupancy of the surface of the following excluded areas is authorized by this lease. It is understood and agreed that the use of these areas for Bureau of Reclamation purposes is superior to any other use. The following restrictions apply only to mineral tracts located within the boundary of a Bureau of Reclamation project where the United States owns 100 percent of the fee mineral interest.

[CODE WYREC 1] a. Within 500 feet on either side of the centerline of any and all roads or highways within the leased area.

[CODE WYREC 2] b. Within 200 feet on either side of the centerline of any and all trails within the leased area.

[CODE WYREC 3] c. Within 500 feet of the normal high-water line of any and all live streams in the leased area.

[CODE WYREC 4] d. Within 400 feet of any and all recreation developments within the leased area.

[CODE WYREC 5] e. Within 400 feet of any improvements either owned, permitted, leased, or otherwise authorized by the Bureau of Reclamation within the leased area.

[CODE WYREC 6] f. Within 200 feet of established crop fields, food plots, and tree/shrub plantings within the leased area.

[CODE WYREC 7] g. Within 200 feet of slopes steeper than a 2:1 gradient within the leased area.

[CODE WYREC 8] h. Within established rights-of-way of canals, laterals, and drainage ditches within the leased area.

[CODE WYREC 9] i. Within a minimum of 500 feet horizontal from the centerline of the facility or 50 feet from the outside toe of the canal, lateral, or drain embankment, whichever distance is greater, for irrigation facilities without clearly marked rights-of-way within the leased area.

j. Providing that appropriate environmental compliance measures can be ensured, and providing further that Reclamation project works and other public interests can be protected, Reclamation may consider, on a case-by-case basis, waiving the requirements specified in Section 2 hereof. **HOWEVER, LESSEES ARE ADVISED THAT OBTAINING SUCH A WAIVER CAN BE A DIFFICULT, TIME CONSUMING, AND COSTLY PROCESS WITH NO GUARANTEE THAT RECLAMATION WILL GRANT THE REQUESTED WAIVER.**

3. No occupancy of the surface or surface drilling will be allowed in the following areas. In addition, no directional drilling will be allowed that would intersect the subsurface zones delineated by a vertical plane in these areas. The following restrictions apply only to mineral tracts located within the boundary of a Bureau of Reclamation project where the United States owns 100% of the fee mineral interest.

[CODE WYREC 10]

a. Within 1,000 feet of the maximum water surface, as defined in the Standard Operating Procedures (SOP), of any reservoirs and related facilities located within the leased area.

[CODE WYREC 11]

b. Within 2,000 feet of dam embankments and appurtenance structures such as spillway structures, outlet works, etc.

[CODE WYREC 12]

c. Within one-half (1/2) mile horizontal from the centerline of any tunnel within the leased area.

[CODE WYREC 13]

d. Providing that appropriate environmental compliance measures can be ensured, and providing further that Reclamation project works and other public interests can be protected, Reclamation may consider, on a case-by-case basis, waiving the requirements specified in Section 3 hereof. **HOWEVER, LESSEES ARE ADVISED THAT OBTAINING SUCH A WAIVER CAN BE A DIFFICULT, TIME CONSUMING, AND COSTLY PROCESS WITH NO GUARANTEE THAT RECLAMATION WILL GRANT THE REQUESTED WAIVER.**

4. The distances stated in items 2 and 3 above are intended to be general indicators only. The Bureau of Reclamation reserves the right to revise these distances as needed to protect Bureau of Reclamation facilities.

5. The use of explosives in any manner shall be so controlled that the works and facilities of the United States, its successors and assigns, will in no way be endangered or damaged. In this connection, an explosives use plan shall be submitted to and approved by the Regional Director, Great Plains Region, Bureau of Reclamation, or his authorized representative.

6. The lessee shall be liable for all damage to the property of the United States, its successors and assigns, resulting from the exploration, development, or operation of the works contemplated by this lease, and shall further hold the United States, its successors and assigns, and its officers, agents, and employees, harmless from all claims of third parties for injury or damage sustained or in any way resulting from the exercise of the rights and privileges conferred by this lease.

7. The lessee shall be liable for all damage to crops or improvements of any entryman, nonmineral applicant, or patentee, their successors and assigns, caused by or resulting from the drilling or other operations of the lessee, including reimbursement of any entryman or patentee, their successors and assigns, for all construction, operation, and maintenance charges becoming due on any portion of their said lands damaged as a result of the drilling or other operations of the lessee.

8. In addition to any other bond required under the provisions of this lease, the lessee shall provide such bond as the United States may at any time require for damages which may arise under the liability provisions of sections six (6) and seven (7) above.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Lessee

Form 3109-1  
(December 1972)  
(formerly 3103-1)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

LEASE STIPULATIONS  
BUREAU OF RECLAMATION

The lessee agrees to maintain, if required by the lessor during the period of this lease, including any extension thereof, an additional bond with qualified sureties in such sum as the lessor, if it considers that the bond required under Section 2(a) is insufficient, may at any time require:

(a) to pay for damages sustained by any reclamation homestead entryman to his crops or improvements caused by drilling or other operations of the lessee, such damages to include the reimbursement of the entryman by the lessee, when he uses or occupies the land of any homestead entryman, for all construction and operation and maintenance charges becoming due during such use or occupation upon any portion of the land so used and occupied;

(b) to pay any damage caused to any reclamation project or water supply thereof by the lessee's failure to comply fully with the requirements of this lease; and

(c) to recompense any nonmineral applicant, entryman, purchaser under the Act of May 16, 1930 (46 Stat. 367), or patentee for all damages to crops or to tangible improvements caused by drilling or other prospecting operations, where any of the lands covered by this lease are embraced in any non-mineral application, entry, or patent under rights initiated prior to the date of this lease, with a reservation of the oil deposits, to the United States pursuant to the Act of July 17, 1914 (38 Stat. 509).

As to any lands covered by this lease within the area of any Government reclamation project, or in proximity thereto, the lessee shall take such precautions as required by the Secretary to prevent any injury to the lands susceptible to irrigation under such project or to the water supply thereof; provided that drilling is prohibited on any constructed works or right-of-way of the Bureau of Reclamation, and provided, further, that there is reserved to the lessor, its successors and assigns, the superior and prior right at all times to construct, operate, and maintain dams, dikes, reservoirs, canals, wasteways, laterals, ditches, telephone and telegraph lines, electric transmission lines, roadways, appurtenant irrigation structures, and reclamation works, in which construction, operation, and maintenance, the lessor, its successors and assigns, shall have the right to use any or all of the lands herein described without making compensation therefor, and shall not be responsible for any damage from the presence of water thereon or on account of ordinary, extraordinary, unexpected, or unprecedented floods. That nothing shall be done under this lease to increase the cost of, or interfere in any manner with, the construction, operation, and maintenance of such works. It is agreed by the lessee that, if the construction of any or all of said dams, dikes, reservoirs, canals, wasteways, laterals, ditches, telephone or telegraph lines, electric transmission lines, roadways, appurtenant irrigation structures or reclamation works across, over, or upon said lands should be made more expensive by reason of the existence of the improvements and workings of the lessee thereon, said additional expense is to be estimated by the

Secretary of the Interior, whose estimate is to be final and binding upon the parties hereto, and that within thirty (30) days after demand is made upon the lessee for payment of any such sums, the lessee will make payment thereof to the United States, or its successors, constructing such dams, dikes, reservoirs, canals, wasteways, laterals, ditches, telephones and telegraph lines, electric transmission lines, roadways, appurtenant irrigation structures, or reclamation works, across, over, or upon said lands; provided, however, that subject to advance written approval by the United States, the location and course of any improvements or works and appurtenances may be changed by the lessee; provided, further, that the reservations, agreements, and conditions contained in the within lease shall be and remain applicable notwithstanding any change in the location or course of said improvements or works of lessee. The lessee further agrees that the United States, its officers, agents, and employees, and its successors and assigns shall not be held liable for any damage to the improvements or workings of the lessee resulting from the construction, operation, and maintenance of any of the works hereinabove enumerated. Nothing in this paragraph shall be construed as in any manner limiting other reservations in favor of the United States contained in this lease.

THE LESSEE FURTHER AGREES That there is reserved to the lessor, its successors and assigns, the prior right to use any of the lands herein leased, to construct, operate, and maintain dams, dikes, reservoirs, canals, wasteways, laterals, ditches, telephone and telegraph lines, electric transmission lines, roadways, or appurtenant irrigation structures, and also the right to remove construction materials therefrom, without any payment made by the lessor or its successors for such right, with the agreement on the part of the lessee that if the construction of any or all of such dams, dikes, reservoirs, canals, wasteways, laterals, ditches, telephone and telegraph lines, electric transmission lines, roadways, or appurtenant irrigation structures across, over, or upon said lands or the removal of construction materials therefrom, should be made more expensive by reason of the existence of improvements or workings of the lessee thereon, such additional expense is to be estimated by the Secretary of the Interior, whose estimate is to be final and binding upon the parties hereto, and that within thirty (30) days after demand is made upon the lessee for payment of any such sums, the lessee will make payment thereof to the United States or its successors constructing such dams, dikes, reservoirs, canals, wasteways, laterals, ditches, telephone and telegraph lines, electric transmission lines, roadways, or appurtenant irrigation structures across, over, or upon said lands or removing construction materials therefrom. The lessee further agrees that the lessor, its officers, agents, and employees and its successors and assigns shall not be held liable for any damage to the improvements or workings of the lessee resulting from the construction, operation, and maintenance of any of the works herein above enumerated. Nothing contained in this paragraph shall be construed as in any manner limiting other reservations in favor of the lessor contained in this lease.

(Signature of Lessee)

To insure against the contamination of the waters of the \_\_\_\_\_ Reservoir,  
 \_\_\_\_\_ Project, State of \_\_\_\_\_, the lessee agrees that  
 the following further conditions shall apply to all drilling and operations on lands covered by this lease, which lie  
 within the flowage or drainage area of the \_\_\_\_\_ Reservoir, as such area  
 is defined by the Bureau of Reclamation:

1. The drilling sites for any and all wells shall be approved by the Superintendent, Bureau of  
 Reclamation, \_\_\_\_\_ Project, \_\_\_\_\_ before  
 drilling begins. Sites for the construction of pipe-line rights-of-way or other authorized facilities shall  
 also be approved by the Superintendent before construction begins.

2. All drilling or operation methods or equipment shall, before their employment, be inspected  
 and approved by the Superintendent of the \_\_\_\_\_ Project,  
 \_\_\_\_\_, and by the Supervisor of the U. S. Geological Survey having jurisdiction  
 over the area.

# Butte, MT BLM – Headwaters RMP



## Jurisdictional Land Transfers to the Forest Service

This alternative was considered for BLM-administered land contiguous to national forests. It was eliminated from detailed study in this RMP because it would unnecessarily duplicate other jurisdictional transfer studies currently being conducted by both agencies.

## Maximum Unconstrained Alternatives

No alternatives that proposed maximum resource areawide production or protection of one resource at the expense of other resources were considered because this would violate the BLM's legal mandate to manage public land on a multiple use, sustained yield basis.

## DELINEATION OF MANAGEMENT UNITS

The Headwaters Resource Area has been divided into thirty-six management units. These management units are displayed on the Management Units map in the back pocket. Each management unit is described in Appendix A.

Management unit boundaries separate areas which, because of different issues, resource values, and/or management opportunities or constraints, require different management guidance. The boundaries are not absolutely fixed, and may be adjusted in the future on the basis of additional information gained during the formulation of activity plans.

Each management unit has one set of management guidelines for each alternative, although for most units, some management guidelines may be identical for two or more alternatives. Management unit guidelines, along with the resource areawide guidance common to all alternatives, define what the total management direction is and how it will be implemented.

In some cases the preferred management guidelines for wilderness study areas that are not recommended for wilderness are inconsistent with the Interim Management Policy for WSAs. The implementation of those guidelines will be deferred until Congress takes action on the wilderness suitability recommendations.

## MANAGEMENT GUIDANCE COMMON TO ALL ALTERNATIVES

The following management guidance is applicable to, and thus constitutes a part of, all alternatives considered in detail. It is presented here to avoid repetition.

### Soil, Water, and Air Program

#### General

Soil, water, and air resources will continue to be evaluated on a case-by-case basis as a part of project level planning. Such an evaluation will consider the significance of the proposed project and the sensitivity of soil, water, and air resources in the affected area. Stipulations will be attached as appropriate to ensure compatibility of projects with soil, water, and air resource management. Appendix C shows an example of general Best Management Practices (BMPs) adopted for forestry activities.

#### Soils

Soils will be managed to maintain productivity and to minimize erosion.

#### Water

Water quality will be maintained or improved in accordance with State and Federal standards, including consultation with State agencies on proposed projects that may significantly affect water quality. Management actions on public land within municipal watersheds will be designed to protect water quality and quantity.

Management activities in riparian zones will be designed to maintain or improve riparian habitat condition.

Roads and utility corridors will avoid riparian zones to the extent practicable.

### Energy and Minerals Program [CODE HW5]

~~Oil and gas leasing in the Sun River Game Range on the Rocky Mountain Front will continue to be denied in accordance with the Secretary's classification agreement of January 29, 1964, which closed the 10,952 acres of federal minerals within the Sun River Game Range to oil and gas leasing. The agreement is based on a finding by the Bureau of Land Management, the Fish and Wildlife Service, and the MDFW&P that oil and gas leasing is not compatible with the purposes for which the Sun River Game Range was originally withdrawn.~~

**Oil and gas lease stipulations identified in this plan will apply only to leases processed after RMP approval. Existing leases will run their full term with only those stipulations attached at the time of lease issuance. Leases included in an operating unit or any future unit where production is established will remain unaffected by new stipulations as long as production continues or until leases are terminated.**

### **Oil and Gas Leasing Outside of the Rocky Mountain Front**

As a general rule, public land outside of the Rocky Mountain Front is available for oil and gas leasing. In many areas, oil and gas leases will be issued with only standard stipulations attached. In other areas, leases will have special stipulations attached to them at the time of issuance to protect seasonal wildlife habitat and/or other sensitive resource values. In highly sensitive areas, where special stipulations are not sufficient to protect important surface resource values, no surface occupancy stipulations will be attached to the lease. The general areas where standard, special, and no surface occupancy stipulations will be applied are shown on the Management Units map. However, site-specific decisions regarding lease issuance and the attachment of appropriate stipulations will continue to be based on application of the Butte District Oil and Gas Leasing Checklist, and the leasing guidelines contained in the Butte District Oil and Gas Leasing Environmental Assessment. Standard and special stipulations and the Butte District Oil and Gas Leasing checklist are included in Appendix B.

### **Geothermal Leasing**

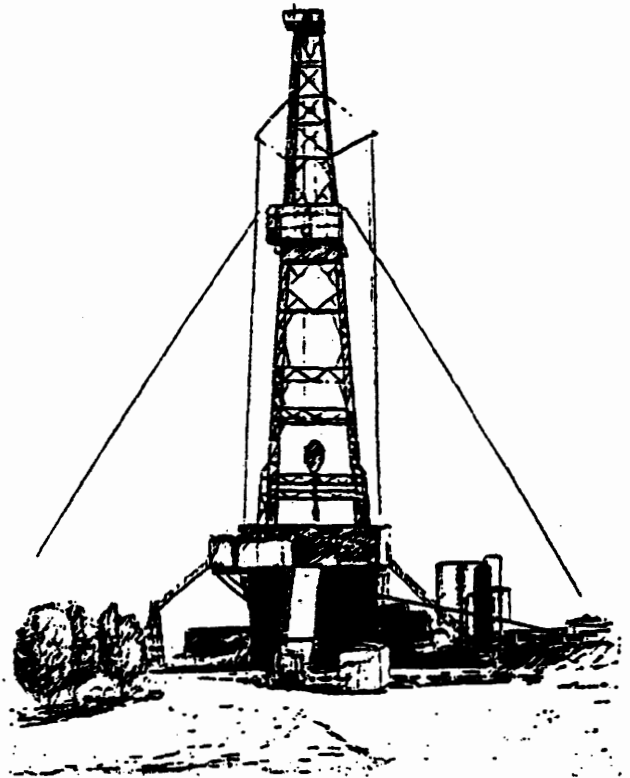
Lease applications will continue to be processed as received. Stipulations will be attached based on interdisciplinary review of each proposal.

### **Locatable Minerals Outside of the Scratchgravel Hills**

All public land is open to mineral entry and development unless previously withdrawn. Mineral exploration and development on public land will be regulated under 43 CFR 3800 to prevent unnecessary and undue degradation of the land. Validity examinations may be requested under the following conditions:

where a mineral patent application has been filed and a field examination is required to verify the validity of the claim(s);

where there is a conflict with a disposal application, and it is deemed in the public interest to do so, or where the statute authorizing the disposal requires clearance of any encumbrance;



where the land is needed for a federal program; or

where a mining claim is located under the guise of the mining law and flagrant unauthorized use of the land or mineral resource is occurring.

Public land will be opened to mineral entry where mineral withdrawals are revoked through the withdrawal review process.

### **Common Variety Mineral Materials**

Applications for the removal of common variety mineral materials, including sand and gravel, will continue to be processed on a case-by-case basis. Stipulations to protect important surface values will be attached based on interdisciplinary review of each proposal.

## **Lands Program**

### **Land Ownership Adjustments**

Draft State Director Guidance for Resource Management Planning in Montana and the Dakotas, published in January 1983, provides criteria for use in categorizing public land for retention or disposal, and for identifying acquisition priorities. Site-specific decisions regarding land ownership adjustments in the resource area will be made based largely on consideration of the following criteria which are derived from State Director Guidance.

tions may be allowed where investment costs can be recovered as a part of land disposal actions.

Specific road and trail construction standards will be determined based on consideration of the following criteria:

resource management needs;

user safety;

impacts to environmental values, including but not limited to wildlife and fisheries habitat, soil stability, recreation, and scenery; and

construction and maintenance costs.

## ALTERNATIVES CONSIDERED IN DETAIL

### Introduction

Four alternatives are considered in detail in this chapter. Three of them—no action, environmental protection, and resource production—were developed to explore a reasonable range of issue resolution scenarios as required by CEG and BLM planning regulations. The fourth alternative—the preferred alternative, or proposed RMP—incorporates portions of the no action, protection, and production alternatives, and generally represents a middle ground approach to issue resolution.

In order to highlight the BLM's preferred alternative for the Headwaters RMP, it is the first alternative discussed in this chapter and all subsequent chapters. It is followed by the no action, protection, and production alternatives in that order. No priority or preference is implied by the order of the latter three alternatives.

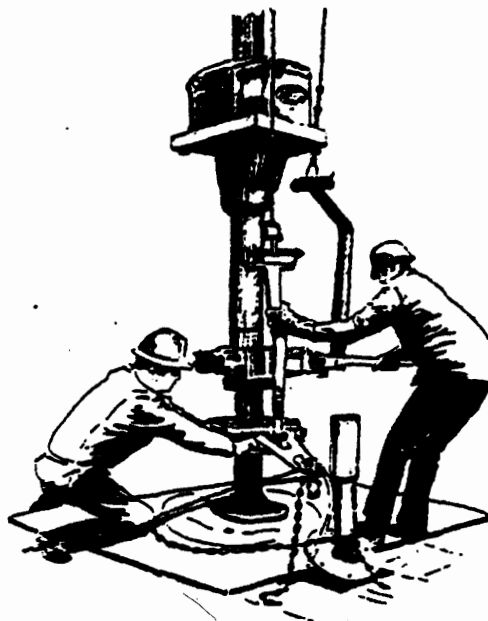
### Alternative A: Preferred Alternative

#### Theme

The preferred alternative balances competing demands by providing for the production of needed goods and services, while protecting important and sensitive environmental values. The goal of this alternative is to change present management to the extent necessary to meet statutory requirements, policy commitments, and to resolve identified issues in a balanced, cost-effective manner.

#### Issue Resolution Guidelines

**Issue 1: Oil and Gas Leasing and Development.** Seasonal stipulations on oil and gas exploration and/or production will be required in bighorn sheep, elk, and mule deer winter/spring range and mountain goat kidding areas. No surface occu-



pancy will be permitted in key grizzly bear spring/summer use areas and within proposed outstanding natural areas. No leasing will be permitted within the core of areas identified for no surface occupancy, if reservoir drainage would not be feasible. Guidelines are displayed on the Oil and Gas Leasing Stipulations: Alternative A map, and are summarized in Table 2-3.

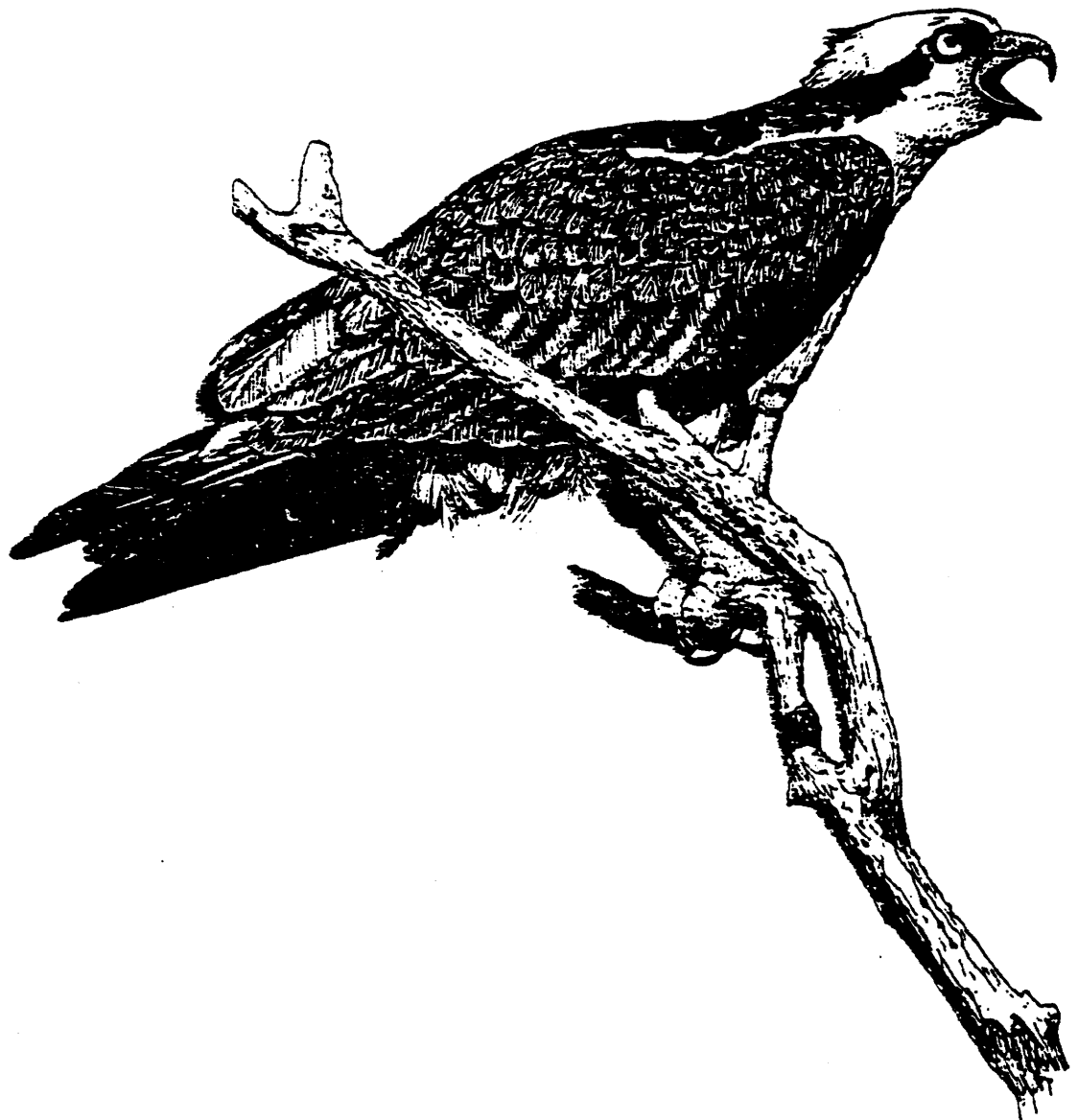
**Issue 2: Grazing Allotment and Riparian Habitat Management.** Reductions in authorized livestock use will be proposed for nineteen allotments, while increases will be proposed for seven allotments. Target levels of adjusted livestock use have been developed (see Appendix N) based on range condition ratings and the Soil Conservation Service's *Montana Grazing Guides* (USDA, SCS n.d.). These target livestock use levels may be adjusted in the future to reflect new resource information gathered by monitoring or other studies. All 1 allotments have been assigned a priority ranking so that future investments in range improvements, treatments, and monitoring will be directed to allotments with the greatest potential for improvement of wildlife, watershed, and vegetation conditions and livestock forage production (see Appendix E). Adjustments proposed under this alternative are summarized in Table 2-4. Estimated range improvement requirements are summarized in Table 2-5.

**Issue 3: Wilderness Study Recommendations.** All areas being studied for wilderness are being recommended as nonsuitable for wilderness management. Individual area boundaries are displayed on the alternative maps for Blind Horse Creek, Chute Mountain, Deep Creek/Battle Creek, Black Sage, and the Yellowstone River Island. Recommendations are summarized in Table 2-6.

## APPENDIX B

# OIL AND GAS LEASING PROCEDURES

A sample of Form MSO-3100-49 was omitted from the Draft RMP/EIS document, but is included on the following page. This form is used to identify seasonal restrictions on exploration, drilling, and other activities including maintenance and operation of producing wells and facilities. A description of the lease application process can be found in Appendix B of the Draft RMP/EIS.



APPENDIXES

SAMPLE OF FORM FOR RESTRICTING ACTIVITY DURING CERTAIN PERIODS

UNITED STATES DEPARTMENT OF THE INTERIOR  
Bureau of Land Management

(OG Sim Serial Number)

(Serial Number)

OIL AND GAS LEASE STIPULATIONS

(% of lease  
affected by  
stipulation)

( ) In order to 1, ( )  
exploration, drilling and other development activity and main-  
tenance and operation of producing wells and facilities that  
requires on site access will be allowed only during the period  
from 2 to 2. Lands  
within the lease area to which this stipulation applies are  
described as follows:

3

Exceptions to this limitation in any year may be specifically  
authorized in writing by the District Engineer, Geological  
Survey (GS), with the concurrence of the District Manager, Bureau  
of Land Management (BLM).

Date

Lessee's Signature

1. Critical resource value affected
2. Beginning and ending dates of nonrestricted season
3. Legal description of lands affected

M50 3100-49 (May 1978)



# Carson National Forest

## **MINERALS**

### **A VISION**

#### **Standards and Guidelines**

**Administer Oil & Gas Cases...** In addition to appropriate laws and regulations, use Memorandum of Understanding that have been developed between the Forest Service and the BLM to guide case processing.

**Surface Occupancy Restrictions...** For proposed oil and gas leases, include additional stipulations for the protection of surface resources in the following categories: [CODE C1] slopes over 40% (507.1 M Acres), riparian areas (33.6 M Acres), critical wildlife habitats, and developed and proposed recreation sites (9.3 M acres). When possible, classify these areas as available for leasing but with “limited surface occupancy”. Develop site specific “limits” if needed. These should describe such requirements as restrictions on periods of permissible activity, access control, etc. If necessary, classify as “no surface occupancy.” Use the same categories to develop appropriate mitigation measures or restrictions for all other mineral development proposals.

[CODE C5] Big game winter range no drilling 11/1-3/31. PITS... Administer and process mineral material cases. Complete pit development plans for all operating pits that address sound development and reclamation procedures. Top soil will be stockpiled. Pit bottoms will be graded to drain and slopes shall be reshaped to 3:1 where practical.

[CODE C6] CSU Forest Management Area

**VALIDITY CONTESTS...** Initiate validity contests on mining claims where there is unwarranted occupancy, detrimental surface disturbance, or the lands are needed for another National forest Program.

**OPERATING PLANS...** Require operating plans for mining claims when significant surface disturbance or occupancy is proposed.

**WITHDRAWALS OF LANDS TO THE PROVISIONS OF THE 1872 MINING LAW...** Withdraw from mineral entry such important areas as recreation facilities, designated recreation sites, etc.



Casper, WY BLM

## Energy and Minerals

### M1: Oil and Gas

BLM-administered lands will remain open to oil and gas leasing and exploration subject to the following provisions:

Mitigating measures prescribed in the Platte River Oil and gas EA (USDI, BLM 1982) and the South Big Horn oil and gas EA (USDI, BLM 1979) will be applied case by case.

No leasing will occur within Naval Petroleum Reserve No. 3 [43 CFR 3100.0-3(a)(2)(iv)]. Lands within 1 mile of this reserve are under restricted oil and gas leasing.

The following tracts will not be leased for oil and gas.

T. 31 N., R. 83 W.  
sec. 25, W $\frac{1}{2}$ NW $\frac{1}{4}$ ;  
sec. 26, E $\frac{1}{2}$ E $\frac{1}{2}$ , SW $\frac{1}{4}$ NE $\frac{1}{4}$ ,<sup>1</sup> W $\frac{1}{2}$ , W $\frac{1}{2}$ SE $\frac{1}{4}$ .

This area is characterized by steep slopes, highly erosive soils, and very sparse vegetation.

T. 39 N., R. 80 W.<sup>2</sup>  
sec. 20, S $\frac{1}{2}$ N $\frac{1}{2}$ , N $\frac{1}{2}$ S $\frac{1}{2}$ , S $\frac{1}{2}$ SE $\frac{1}{4}$ ;  
sec. 21, N $\frac{1}{2}$ , N $\frac{1}{2}$ S $\frac{1}{2}$ , SE $\frac{1}{4}$ SW $\frac{1}{4}$ , S $\frac{1}{2}$ SE $\frac{1}{4}$ ;  
sec. 28, SW $\frac{1}{4}$ NE $\frac{1}{4}$ , NW $\frac{1}{4}$ NW $\frac{1}{4}$ .

[CODE PR3]

These parcels are located in the Castle Creek sensitive drainage. Slopes are very steep and highly erosive.

T. 40 N., R. 77 W.  
sec. 15, S $\frac{1}{2}$ SW $\frac{1}{4}$ ;  
sec. 22, E $\frac{1}{2}$ NE $\frac{1}{4}$ , SE $\frac{1}{4}$ NW $\frac{1}{4}$ .

[CODE PR4]

These parcels are in a timbered drainage. Slopes are in excess of 25% and soils are highly erosive.

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<sup>1</sup> Plan Change No. 24, approved February 20, 1997, corrects the legal description from SE $\frac{1}{4}$ NE $\frac{1}{4}$  to SW $\frac{1}{4}$ NE $\frac{1}{4}$ .

<sup>2</sup> This description was rewritten to conform with standards.

The following mitigation guidelines have been developed to standardize the wording used by the BLM in Wyoming. They will be applied as necessary to each lease. Changes in these standards that may occur will be accomplished by plan maintenance.<sup>3</sup>

1. Surface Disturbance Mitigation Guideline<sup>4</sup>

Surface disturbance will be prohibited in any of the following areas or conditions. Exception, waiver or modification of this limitation may be approved in writing, including documented supporting analysis, by the Authorized Officer.

- a. Slopes in excess of 25%.<sup>5</sup>
- b. Within important scenic areas identified in a land use plan (Class I and II Visual Resource Management Areas).
- c. Within 500 feet of surface water and(or) riparian areas.
- d. Within either one-quarter mile or the visual horizon (whichever is closer) of historic trails.
- e. Construction with frozen material or during periods when the soil material is saturated or when watershed damage is likely to occur.
- f. Within 500 feet of Interstate highways and 200 feet of other existing rights-of-way (i.e., U.S. and State highways, roads, railroads, pipelines, powerlines).
- g. Within ¼ mile of occupied dwellings.
- h. Material sites.

[CODE       Fragile Soils  
CS\_FRAG\_SE]

Guidance:

The intent of the SURFACE DISTURBANCE MITIGATION GUIDELINE is to inform interested parties (potential lessees, permittees, or operators) that when one or more of the five (1a. through 1e.) conditions exists, surface-disturbing activities will be prohibited, unless or until a permittee or his designated representative and the surface management agency (SMA) arrive at an acceptable plan for mitigation of anticipated impacts. This negotiation will occur prior to development.

Specific criteria (e.g., 500 feet from water) have been established, based upon the best information

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<sup>3</sup> Plan Change No. 9 approved October 5, 1990, adopts the *Wyoming BLM Standard Mitigation Guidelines for Surface Disturbing Activities*, replacing the "standard stipulations".

<sup>4</sup> Plan Change No. 42, approved August 20, 1997, adds rights-of-way, occupied dwellings, and material sites to the list.

<sup>5</sup> The 25% slope restriction cannot be waived for any lands in the South Bighorn Mountains RMU-1 (see decision SWA4).

available. However, geographical areas and seasons must be delineated at the field level.

Exception, waiver or modification of requirements developed from this guideline must be based upon environmental analysis of proposals (e.g., activity plans, plans of development, plans of operation, Applications for Permit to Drill) and, if necessary, must allow for other mitigation to be applied on a site specific basis.

## 2. Wildlife Mitigation Guideline

- a. To protect important big game winter habitat, activities or surface use will not be allowed from November 15 to April 30 within certain areas encompassed by the authorization. The same criteria applies to defined big game birthing areas from May 1 to June 30.

Application of this limitation to operation and maintenance of a developed project must be based on environmental analysis of the operational or production aspects.

Exception, waiver or modification of this limitation in any year may be approved in writing, including documented supporting analysis, by the Authorized Officer.

- b. To protect important raptor and(or) sage and sharp-tailed grouse nesting habitat, activities or surface use will not be allowed from February 1 to July 31 within certain areas encompassed by the authorization. The same criteria applies to defined raptor and game bird winter concentration areas from November 15 to April 30.

Application of this limitation to operation and maintenance of a developed project must be based on environmental analysis of the operational or production aspects.

Exception, waiver or modification of this limitation in any year may be approved in writing, including documented supporting analysis, by the Authorized Officer.

- c. No activities or surface use will be allowed on that portion of the authorization area identified within (legal description) for the purpose of protecting (e.g., sage/sharp-tailed grouse breeding grounds, and(or) other species/activities) habitat.

Exception, waiver or modification of this limitation in any year may be approved in writing, including documented supporting analysis, by the Authorized Officer.

- d. Portions of the authorized use area legally described as (legal description), are known or suspected to be essential habitat for (Name) which is a threatened/endangered species. Prior to conducting any onsite activities, the lessee/permittee will be required to conduct inventories or studies in accordance with BLM and U.S. Fish and Wildlife Service (USFWS) guidelines to verify the presence or absence of this species. In the event that (Name) occurrence is

identified, the lessee/permittee will be required to modify operational plans to include the protection requirements of this species and its habitat (e.g., seasonal use restrictions, occupancy limitations, facility design modifications).

## Guidance

The WILDLIFE MITIGATION GUIDELINE is intended to provide two basic types of protection, seasonal restriction (a and b) and prohibition of activities or surface use (c). Item (d) is specific to situations involving threatened and endangered species. Legal descriptions will ultimately be required and should be measurable and legally definable. There are no minimum subdivision requirements at this time. The area delineated can and should be defined as necessary, based upon current biological data, prior to the authorization. The legal description must eventually become a part of the condition for approval of the permit, plan of development, and(or) other use authorization.

The seasonal restriction section identifies three example groups of species and delineates three similar time frame restrictions. The big game species including elk, moose, deer, antelope, and bighorn sheep, all require protection of crucial winter range between November 15 and April 30. Elk and bighorn sheep also require protection from disturbance from May 1 to June 30, when they typically occupy distinct calving and lambing areas. Raptors including eagles; accipiters; falcons (peregrine, prairie, and merlin); buteos (ferruginous and swainson's hawks); osprey; and burrowing owls. The raptors and sage and sharp-tailed grouse require nesting protection between February 1 and July 31. The same birds often require protection from disturbance from November 15 through April 30 while they occupy winter concentration areas.

[CODE  
CS\_BEBUFF]

[CODECSBEROOST]

Item 2c, the prohibition of activity or surface use, is intended for protection of unique wildlife habitat areas or values within the use area. These areas or values must be factors that limit life-cycle activities (e.g., sage grouse strutting grounds, known threatened and endangered species habitat) that cannot be protected using seasonal restrictions.

Exception, waiver or modification of requirements developed from this guideline must be based upon environmental analysis of proposals (e.g., activity plans, plans of development, plans of operation, Applications for Permit to Drill) and, if necessary, must allow for other mitigation to be applied on a site specific basis.

### 3. Cultural Resource Mitigation Guideline

When a proposed discretionary land use has potential for affecting the characteristics which qualify a cultural property for the National Register of Historic Places, mitigation will be considered. In accordance with Section 106 of the Historic Preservation Act, procedures specified in 36 CFR 800 will be used in consultation with the State Historic Preservation Officer (SHPO) and the Advisory Council on Historic Preservation in arriving at determinations regarding the need and type of mitigation to be required.

## Guidance

The referred strategy for treating potential adverse effects on cultural properties is "avoidance." If avoidance involves project relocation, the new project area may also require cultural resource inventory. If avoidance is imprudent or unfeasible, appropriate mitigation may include excavation (data recovery), stabilization, monitoring, protection barriers and signs, or other physical and administrative measures.

Reports documenting results of cultural resource inventory, evaluation, and the establishment of mitigation alternatives (if necessary) shall be written according to standards contained in BLM Manuals, the cultural resource permit stipulations and in other policy issued by the BLM. These reports must provide sufficient information for Section 106 consultation. Reports shall be reviewed for adequacy by the appropriate BLM cultural resource specialist. If cultural properties on, or eligible for, the National Register are located within these areas of potential impact and cannot be avoided, the Authorized Officer shall begin the Section 106 consultation process in accordance with the procedures contained in 36 CFR 800.

Mitigation measures shall be implemented according to the mitigation plan approved by the BLM Authorized Officer. Such plans are usually prepared by the land use applicant according to BLM specifications. Mitigation plans will be reviewed as part of Section 106 consultation for the National Register eligible or listed properties. The extent and nature of recommended mitigation shall be commensurate with the significance of the cultural resource involved and the anticipated extent of damage. Reasonable costs for mitigation will be borne by the land use applicant. Mitigation must be cost effective and realistic. It must consider project requirements and limitations, input from concerned parties, and be BLM approved or BLM formulated.

Mitigation of paleontological and natural history sites will be treated on a case-by-case basis. Factors such as site significance, economics, safety, and project urgency must be taken into account when making a decision to mitigate. Authority to protect (through mitigation) such values is provided for in FLMPA, Section 102(a)(8). When avoidance is not possible, appropriate mitigation may include excavation (data recovery), stabilization, monitoring, protection barriers and signs, or other physical and administrative protection measures.

[CODE PR21, 4. Special Resource Mitigation Guideline

CS\_SDR2,

CS\_SPEC\_DEE]

To protect (resource value), activities or surface use will not be allowed (i.e., within a specific distance of the resource value or between date-to-date) in (legal subdivision).

Application of this limitation to operation and maintenance of a developed project must be based on environmental analysis of the operational or production aspects.

Exception, waiver or modification of this limitation in any year may be approved in writing, including

documented supporting analysis, by the Authorized Officer.

Example Resource Categories (Select or Identify Category and Specific Resource Value):

- a. Recreation areas.
- b. Special natural history or paleontological features.

[CODE PR21C

[CODE CS\_RIVSTRM]]

- c. Special management areas.

- d. Sections of major rivers.

[CODES PR21D, CS\_RIVLKS]

[CODE PR21E]

- e. Prior existing rights-of-way.

- f. Occupied dwellings.

[CODE PR21G]

- g. Other (specify).

#### Guidance

The SPECIAL RESOURCE MITIGATION GUIDELINE is intended for use only in site-specific situations where one of the first three general mitigation guidelines will not adequately address the concern. The resource value, location, and specific restriction must be clearly identified. A detailed plan addressing specific mitigation and special restrictions will be required prior to disturbance or development and will become a condition for approval of the permit, plan of development, or other use authorization.

Exception, waiver or modification of requirements developed from this guideline must be based upon environmental analysis of proposals (e.g., activity plans, plans of development, plans of operation, Applications for Permit to Drill) and, if necessary, must allow for other mitigation to be applied on a site specific basis.

#### 5. No Surface Occupancy Guideline

No surface occupancy will be allowed on the following described lands (legal subdivision/area) because of (resource value).

Example Resource Categories (Select or Identify Category and Specific Resource Value):

- a. Recreation areas (e.g., campgrounds, historic trails, national monuments).
- b. Major reservoirs/dams.
- c. Special management areas (e.g., ACEC, known threatened and endangered species habitat, wild and scenic rivers).
- d. Other (Specify).

Guidance:

The NO SURFACE OCCUPANCY (NSO) MITIGATION GUIDELINE is intended for use only when other mitigation is determined insufficient to adequately protect the public interest and is the only alternative to "no development" or "no leasing." The legal subdivision and resource value of concern must be identified and be tied to an NSO land use planning decision.

Waiver of or exception(s) to the NSO requirement will be subject to the same test used to initially justify its imposition. If, upon evaluation of a site-specific proposal, it is found that less restrictive mitigation would adequately protect the public interest or value of concern, then a waiver or exception to the NSO requirement is possible. The record must show that because conditions or uses have changed, less restrictive requirements will protect the public interest. An environmental analysis must be conducted and documented (e.g., EA, or EIS, etc. as necessary) in order to provide the basis for a waiver or exception to an NSO planning decision. Modification of the NSO requirement will pertain only to refinement or correction of the location(s) to which it applies. If the waiver, exception or modification is found to be consistent with the intent of the planning decision, it may be granted. If found inconsistent with the intent of the planning decision, a plan amendment would be required before the waiver, exception or modification could be granted.

When considering the "no development" or "no leasing" option, a rigorous test must be met and fully documented in the record. This test must be based upon stringent standards described in the land use planning document. Since rejection of all development rights is more severe than the most restrictive mitigation requirement, the record must show that consideration was given to development subject to reasonable mitigation, including No Surface Occupancy. The record must also show that other mitigation was determined to be insufficient to adequately protect the public interest. A "no development" or "no leasing" decision should not be made solely because it appears that conventional methods of development would be unfeasible, especially where an NSO restriction may be acceptable to a potential permittee. In such cases, the potential permittee should have the opportunity to decide whether or not to go ahead with the proposal (or accept the use authorization), recognizing that an NSO restriction is involved.

Refer to the Standards for Healthy Rangelands and Guidelines for Livestock Grazing Management.<sup>6</sup>

Additional stipulation maps supplied by office:

[CODE PR22, TL (12/1-6/31) Sensitive Soils and Fragile Watershed Resources  
CS\_WATERSH]

[CODE PR22a, TL (11/30-6/1) Sensitive Soils & Fragile Watershed Laramine mts. Resource  
CS\_sdr4]

[CODE PR22b] TL (12/30-6/1) Sensitive Soils & Fragile Watershed Resources

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<sup>6</sup> Plan Change No. 47, approved October 31, 1997, incorporates Standards and Guidelines into the RMP.



[CODE PR23] **NSO**

**Riparian and Watershed Resources**

[CODE PR24] **NSO**

**Sensitive Soils and Fragile Watershed Resources**

[CODE PR25] **NSO**

**Trails and Archeology Sites**

Cedar Beaver Antimony Garfield RMP  
Richfield, UT BLM  
Cedar City, UT BLM  
Kanab, UT BLM

Category 2

The following is a list of stipulations that would be applied in whole or in part to individual leases for the protection of specific resources in specific locations. This list was derived from a list of nine stipulations. Only those stipulations applicable to the CBCA planning area are listed and include the following:

[CODE CB1]

Stipulation 2

No access or work trail or road, earth cut or fill, structure or other improvement, other than an active drilling rig, will be permitted if it can be viewed from the (road, lake, river, etc.)

Critical viewpoints (roads) include: Interstate 15, Utah Highway 14, Utah Highway 89 (Circleville Canyon), and Utah Highway 143, and are applied to foreground/midground visual zone of VRM Class II areas.

Stipulation 4

No occupancy or other surface disturbance will be allowed within 400 feet of the identified (river, creek). This distance may be modified when specifically approved in writing by the District Manager of the BLM, with the concurrence of the authorized officer of the Federal surface management agency,

Stipulation 7

In order to (minimize watershed damage, protect important seasonal wildlife habitat, etc.) exploration, drilling, and other development activity will be allowed:

[CODE CB3]

1. Seasonally between May 1 and December 30 in critical big game winter ranges (NSO – January 1- April 30).
2. Seasonally between May 2 and March 14 within sage grouse strutting grounds (NSO – ½ mile - March 15- May 1)

[CODE CB5]

3. Seasonally between May 1 – October 31 in T&E –Bald Eagle roost and perch sites (NSO – ¼ - November 1 – April 30).

[CODE CB6]

Category 3

The following stipulation applies to all leases in Category 3 areas:

No occupancy or other activity on the surface of (legal subdivision) is allowed under this lease. (No surface occupancy – NSO)

Category 3 is used where resources are particularly sensitive to any surface disturbance. In the Cedar City District, these areas include occupied Utah prairie dog habitat and some riparian habitat. These areas include some recreation sites, sanitary landfills, and airports and buffer zone required by FAA regulations. In addition to the above resources, recreation sites previously protected by Category 3 stipulations were evaluated as to current need for development and maintenance. If sites were no longer required to meet management objectives, then they were placed in Category 1.

Only those areas which can be reasonably accessed by directional (slant) drilling are put into this category. This typically includes areas no wider than one-half mile. Directional drilling over distances greater than one-half mile is generally unfeasible.

#### Category 4 – No Leasing

Category 4 lands are those areas which need a no surface occupancy protection but are inaccessible to directional drilling because they are more than one-half mile from a surface occupancy site.

No leases will be issued in Category 4 lands, except as issued by the authorized officer.

# Cibola National Forest

**STIPULATION FOR LANDS OF THE NATIONAL FOREST SYSTEM  
UNDER JURISDICTION OF  
DEPARTMENT OF AGRICULTURE**

The licensee/permittee/lessee must comply with all the rules and regulations of the Secretary of Agriculture set forth at Title 36, Chapter II, of the code of Federal Regulations governing the use and management of the National Forest Systems (NFS) when not inconsistent with the rights granted by the Secretary of Agriculture's rules and regulations must be complied with for (1) all use and occupancy of the NFS prior to approval of a permit/operation Plan by the Secretary of the Interior, (2) uses of all existing improvements, such as Forest development roads, within and outside the area licensed, permitted or leased by the Secretary of the Interior, and (3) use and occupancy of the NFS not authorized by a permit/operating plan approved by the Secretary of the Interior.

All matters related to this stipulation are to be addressed to:

Forest supervisor  
Cibola National Forest  
2113 Osuna Rd., NE, Suite A  
Albuquerque, NM 87113-1001

Telephone Number: 505-346-2650

The Forest Supervisor is the authorized representative of the Secretary of Agriculture.

Serial No.

**A R-3 Cultural Resource Management** [CODE CF1]

No surface disturbing work can be approved until a Cultural Resource survey and report is completed.

The permittee, contractor, or lessee shall be responsible for the protection from damage of all identified cultural resources within the area which may be affected by their actions. In addition, the permittee, contractor or lessee shall be liable for all damage or injury to the identified cultural resources caused by their actions

The permittee, contractor, or lessee shall immediately notify the agency Project Administrator if any damage occurs to any cultural resource and immediately halt work in the area in which damage has occurred until authorized by the Project Administrator, after consultation with the Forest Archeologist, to proceed. All provisions of the Region 3 Cultural Resources Damage Assessment Handbook (FSH 2309.24, Chapter 40) are incorporated by reference herein.

**B Threatened, Endangered and Sensitive Species Habitat**

The lessee is advised that the lease areas may contain populations of and/or habitat for threatened, endangered, proposed or sensitive species. The leased lands will be examined prior to undertaking any surface disturbing activities (including seismic explorations) to determine effects upon any plant or animal species and prescribe necessary mitigations. These examinations will be initiated upon receipt of an Application for Permit to Drill, seismic testing request, or when any ground disturbing activity is proposed. Field surveys for some species may, however, require delays until appropriate field conditions can be met. Should proposed activities involve possible effects to a Federally listed species, consultation with USFWS may be required. Delays for consultation could take 90 to 130 days.

**Serial No.**

## **CONTROLLED SURFACE USE STIPULATION**

**Surface occupancy or use is subject to the following special operating constraints:**

**The lessee is given notice that facilities and access roads will not be located within any black-tailed prairie dog towns.**

**The lands covered by this stipulation are described as follows:**

**For the purpose of:**

**Protecting black-tailed prairie dog burrowing habitat.**

**Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes.**



Serial No.

### TIMING LIMITATION STIPULATION

No surface use is allowed during the following time period(s). This stipulation does not apply to operational and maintenance of production facilities.

Ferruginous Hawk and Swainson's Hawk Nesting Season - Between the dates of March 1 and April 31, within a quarter mile of any suitable nesting sites; Between April 1 and July 31, within a quarter mile of any active nest.

On the lands described below:

For the purpose of:

Protecting nesting hawks and their young.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes.

Serial No.

## **CONTROLLED SURFACE USE STIPULATION**

**Surface occupancy or use is subject to the following special operating constraints:**

**The lessee is given notice that a closed circulation system will be used for all oil and gas drilling. No open pits will be allowed.**

**The lands covered by this stipulation are described as follows:**

**For the purpose of:**

**Avoid potential ground and surface water contamination and surface disturbance associated with open pits.**

**Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes.**

Durango & Uncompahgre, CO BLM

## APPENDICES

### APPENDIX A

## Leasing Stipulations and Notices, "No Lease" Areas, and Conditions of Approval for Permits

### No Surface Occupancy

1. No surface occupancy would be allowed on leases within the area of federally leased coal lands where oil and gas development would likely be incompatible with coal extraction. This stipulation may be waived without a plan amendment if the lessee agrees that the drilling of a well will be subject to the following conditions: (1)(a) well must be plugged when the mine approaches within 500 feet of the well and re-entered or re-drilled upon completion of the mining operation; (b) well must be plugged in accordance with Mine Safety and Health Administration (formerly Mine Enforcement and Safety Administration) Informational Report 1052; (c) operator will provide accurate location of where the casing intercepts the coal by providing a directional and deviation survey of the well to the coal operator; or (2) relocate well into a permanent pillar or outside the area to be mined. A suspension of operations and production will be considered for the oil and gas lease only when a well is drilled and later plugged, and a new well or re-entry is planned when the mine moves through the location.

[CODE UN\_CO2, UN\_CO2SGL]

2. Grouse (includes sage grouse, mountain sharp-tailed, lesser and greater prairie chickens). NSO within one-quarter mile radius of a lek site (courtship area).

Exception for grouse leks. The NSO area may be altered depending upon the active status of the lek or the geographical relationship of topo-

graphical barriers and vegetation screening to the lek site.

[CODE UN\_CO3, UN\_CO03GEA, UN\_CO03GEI]

3. Raptors (includes golden eagle and osprey; all accipiters; falcons except kestrel; butteos; and owls). Raptors that are listed and protected by the Endangered Species Act are addressed separately. NSO within one-eighth mile radius of nest site.

Exception for raptor nest site. The NSO area may be altered depending on the active status of the nest site or the geographical relationship of topographic barriers and vegetation screening to the nest site.

[CODE UN\_CO4, UN\_CO04BEA, UN\_CO04BEI],

4. [CODE UN\_CO04BEC] Bald Eagle NSO within one-quarter mile radius of the roost or nest site.

[CODE UN\_CO04BER]

Exception for bald eagle roost site. The NSO applies to the essential features of the winter roost site complex. The NSO area may be altered depending on the active status of the roost or the geographical relationship of topographic barriers and vegetation screening.

There are no exceptions currently identified for nest sites.

5. [CODE UN\_CO-05] Peregrine Falcon NSO within one-quarter mile radius of cliff nesting complex.

No specific exception criteria are currently identified.

6. Mexican Spotted Owl

NSO within one-quarter mile radius of the confirmed roost site and nesting site.

No specific exception criteria are currently identified.

7. Waterfowl and Shore-

bird NSO on significant production areas (Major areas are Waterfowl Habitat Management Areas and rookeries.)

No specific exception criteria are currently identified.

8. [CODE UN\_CO08TEO] NSO on habitat areas with special status plant species (Includes federally-listed and proposed species for listing and candidate species.)

Exception for special status plant species habitat. The NSO may be altered after important factors are considered in a site-specific impact analysis such as the type and amount of surface disturbance, plant frequency and density, and the relocation of disturbances.

[CODES SJ1, UN\_SJO1F]

9. The following areas will have NSO stipulations appended to leases issued within them for the protection of scenic, natural, and cultural values and resources.

Cannonball Ruin  
 Lowry Ruin and Associations  
 Dominguez-Escalante Ruins  
 Tabeguache Cave II and Tabeguache Canyon  
 Dolores Cave  
 Tabeguache Pueblo  
 McLean Basin Towers and associations  
 Painted Hand Petroglyphs and associations  
 Painted Hand Ruin  
 Indian Henry's Cabin and associations  
 Lighting Tree Tower Group  
 Battle Rock  
 Easter Ruin  
 Seven Towers Ruin Group  
 Hovenweep Canyon

East Cortez

Goodman Canyon and Goodman Point

Buffer Zone

Bass Ruin Complex

Sandstone Canyon

Brewer Well Complex

Yellowjacket Canyon

Basin Wickiup Village

Woods Canyon

Bridge Canyon

Porter Ruin

Upper Ruin Canyon

Bowdish Canyon

No specific exception criteria are currently identified.

10. [CODE SJ2] Sand, East Rock Canyons, Squaw/Papoose, Cross, Cahone Canyons, Hovenweep National Monument Cooperative Management Strategies Area, the archaeological resources of Horseshoe/Holly House segment of the Hovenweep National Monument, and Cutthroat Castle Ruin Group Buffer Zone: Protection of archaeological values.

No specific exception criteria are currently identified.

11. [CODE SJ3] Dolores River Canyon, Menefee and Weber Mountains: Protection of recreational and visual values.

No specific exception criteria are currently identified.

12. Bridge Canyon (McElmo) RNA: Protection of habitat for rare species of flora and fauna.

No specific exception criteria are currently identified.

13. Horse Range Mesa Paleontological site (40 acres): Protection of vertebrate fossils.

Exception criterion includes funding of accredited paleontological excavation to recover all vertebrate fossils to the point of scientific insignificance.

### **Timing Limitation Stipulations**

[CODE UN\_CO9, UN\_CO02BGR, MULSWR1, UN)CO09MULWCO UN\_CO09] [CODE UN\_CO09WCO] 1. [CODE CO9] **Big game species** (in-

cludes species of mule deer, elk, pronghorn antelope, and bighorn sheep). Note: Crucial winter habitat includes severe big game winter range or other definable winter ranges as mapped by the Colorado Division of Wildlife.

**Big Game Crucial Winter Habitat - December 1 to April 30**

Exception for big game crucial winter habitat. Under mild winter conditions, the last 60 days of the seasonal limitation period may be suspended. Severity of the winter will be determined on the basis of snow depth, snow crusting, daily mean temperatures, and whether animals were concentrated on the crucial winter range during the winter months.

Exception for big game crucial winter habitat. This limitation may or may not apply to work requiring a Sundry Notice pending environmental analysis of any operational or production aspects.

#### 2. **Big Game Birthing Areas:** (by species)

- a. Elk calving - April 16 to June 30 [CODE UN\_CO-10] [CODE CO10]
- b. Pronghorn Antelope fawning - May 1 to July 15 [CODE UN\_CO10ELK]
- c. Rocky Mountain Bighorn Sheep Lambing - May 1 to July 15 |
- d. Desert Bighorn Sheep Lambing - March 16 to May 30 [CODE UN\_CO-14] [CODE CO14]

Exception for Big Game Birthing Areas. When it is determined through a site-specific environmental analysis that specific actions would not

interfere with critical habitat function or compromise animal condition within the project vicinity, the restriction may be altered or removed.

[CODE UN\_CO-15, UN\_CO15SGW]

3. [CODE CO15] **Grouse** (includes sage grouse, mountain sharp-tailed, and lesser and greater prairie chickens)

Sage grouse crucial winter habitat - December 16 to March 15

No specific exception criteria are currently identified.

4. **Greater Sandhill Crane** nesting and staging habitat areas - March 1 to October 16

No specific exception criteria are currently identified.

5. **White Pelican** nesting and feeding habitat areas - March 16 to September 30

No specific exception criteria are currently identified.

[CODE UN\_CO18, UN\_CO18GEA, UNCO18GEI]

6. [CODE CO18] **Raptor** nesting and fledgling habitat (includes the golden eagle and all accipiters; falcons, except the kestrels\*; all butteos; and owls except Mexican spotted owls, see stipulation CO-21, below) - February 1 to August 15. Raptors that are listed and protected by the Endangered Species Act are addressed separately.

This seasonal limitation applies to a one-quarter mile buffer zone around the nest site.

\*Kestrels are very adaptable to nest in a variety of habitats and their populations are stable and widespread.

7. [CODE UN\_CO-19] Ferruginous hawk nesting and fledgling habitat - February 1 to August 15. The sensitivity of the ferruginous hawk to human associated disturbance activities requires a one-mile buffer zone to avoid nest abandonment. [CODE CO19]

8. Osprey nesting and fledgling habitat - April 1 to August 31. The sensitivity of osprey to human associated disturbance activities requires a half-mile buffer zone to avoid nest abandonment.

Exception for raptors, Ferruginous hawks, and Ospreys (#'s 6., 7., and 8., above) nesting habitat. During years when a nest site is unoccupied or unoccupied by or after May 15, the seasonal limitation may be suspended. It may also be suspended once the young have fledged and dispersed from the nest.

9. Mexican Spotted Owl nesting and fledgling habitat - February 1 to July 31.

The Mexican spotted owl has been petitioned for listing as a threatened or endangered species to U.S. Fish and Wildlife Service. Subject to the petition determination, the following habitat management guidelines and restrictions will be used to protect the Mexican spotted owl. These guidelines are adopted from the interim timber harvest management guidelines issued by the Forest Service, Southwest Region (*Federal Register*, Vol. 54, No.124, June 29, 1989).

Mexican spotted owl habitat is restricted by use of a timing limitation applied to core areas within the owl habitat territory. The territories are by definition of two types: (1) territory in which an owl(s) has been spotted, but no nests or roosts have been confirmed, and (2) territory in which there is confirmed nesting, feeding, and roosting activity. The territory of a Mexican spotted owl is thought to be about 2,000 acres and does not overlap with another individual's

(or pair's) territory. Within the territory is a core area of 450 acres where there have been sightings only ([1] above), or 1,480 acres where there are confirmed nests and/or roosts ([2] above). The timing restriction from February 1 to July 31 is applied to the core areas (450 or 1,480 acres). A proposed oil and gas operation within the remainder of the territory (2,000 acres minus 450 or 1,480 acres) will be analyzed prior to permit approval and mitigated for compatibility with the owl habitat.

No specific exception criteria are currently identified.

[CODE UN\_CO22, UN\_CO22BEA, UN\_CO22BEI]

10. [CODE CO22] Bald Eagle Nesting Habitat - December 15 to June 15

Restriction for bald eagle courtship behavior and nesting habitat. This time period is extremely sensitive to human-disturbance activities and may cause nest abandonment and desertion of long established territories. A one-half mile buffer zone around the nest site is required to prevent disruption of nesting.

Exception for bald eagle nesting habitat. During years when a nest site is unoccupied by or after May 15, the timing limitation may be suspended. It may also be suspended once the young have fledged and dispersed from the nest.

[CODE UN\_CO23, UN\_CO23BER, UN\_CO23BEC]

11. [CODE CO23] Winter Roost Site - November 16 to April 15. Restriction for bald eagle winter roost site.

The sensitivity of bald eagles to human disturbance activities requires a one-half mile buffer area around the roost site to avoid relocation to less suitable areas.

Exception for winter roost habitat. If there is partial or complete visual screening of the area of activity, the primary zone around the roost site may be reduced to one-quarter mile.

12. | Peregrine Falcon Cliff Nesting Complex - March 16 to July 31  
[CODE UN\_CO24, UN\_CO24BP]

Restriction for peregrine falcon cliff nesting complex. The sensitivity of peregrine falcon to human-disturbance activities requires a half-mile buffer area around the nesting complex to prevent abandonment and desertion of established territories. [CODE CO24]

The following exception would apply only after formal Section 7 Consultation with the U.S. Fish and Wildlife Service was consummated.

Exception for nesting habitat. During years when a nest site is unoccupied or unoccupied by or after May 15, the seasonal limitation may be suspended. It may also be suspended once the young have fledged and dispersed from the nest.

13. [CODE SJ6] | Wild Horse Foaling Area:  
March 2 to June 30

No specific exception criteria are currently identified. [CODES SJ7, UN\_SJ07BE, UN\_SJ07BEW]  
[CODE UN\_SJ071L, UN\_SJ07ELL, UN\_SJ07C]  
14. UN\_SJSM07C | Bald Eagle Winter Concentration Areas: December 1 to April 15

No specific exception criteria are currently identified.

## **Controlled Surface Use**

1. Where oil and gas operations are proposed within the area of federally leased coal they will be relocated outside the area to be mined or so as to accommodate room and pillar mining operations. This stipulation may be waived without a plan amendment if the lessee agrees that the drilling of a well will be subject to the following conditions: (1)(a) well must be plugged when the mine approaches within 500 feet of the well and re-entered or re-drilled upon completion of the mining operation; (b) well must be plugged in

accordance with Mine Safety and Health Administration (formerly Mine Enforcement and Safety Administration) Informational Report 1052; (c) operator will provide accurate location of where the casing intercepts the coal by providing a directional and deviation survey of the well to the coal operator; or (2) relocate well into a permanent pillar or outside the area to be mined. A suspension of operations and production will be considered when the well is plugged and a new well is to be drilled after mining operations move through the location.

2. [CODE UN\_CO-27] Prior to surface disturbance on slopes of, or greater than, 40 percent, an engineering/reclamation plan must be approved by the Authorized Officer. Such plans must demonstrate how the following will be accomplished: [CODE CO27]

- a. Site productivity will be restored.
- b. Surface runoff will be adequately controlled.
- c. Off-site areas will be protected from accelerated erosion such as drilling, gullyng, piping, and mass wasting.
- d. Surface-disturbing activities will not be conducted during extended wet periods.
- e. Construction will not be allowed when soils are frozen.

No specific exception criteria are currently identified.

[CODE UN\_CO28, UN\_CO28BAR]

3. [CODE CO28] For the protection of perennial water impoundments and streams, and/or riparian/wetland vegetation zones, activities associated with oil and gas exploration and development including roads, transmission lines, storage facilities, are restricted to an area beyond the riparian vegetation zone.

Exceptions: This stipulation may be excepted subject to an on-site impact analysis with consideration given to degree of slope, soils, importance to the amount and type of wildlife and fish



use, water quality, and other related resource values.

This stipulation will not be applied where the Authorized Officer determines that relocation up to 200 meters can be applied to protect the riparian system during well sighting.

## Lease Notices

1. Prior to authorizing surface-disturbing activities in Class I and II Paleontological Areas, an inventory will be performed by an accredited paleontologist approved by the Authorized Officer.

2. In order to protect nesting grouse species, surface-disturbing activities proposed during the period between March 1 and June 30 will be relocated, consistent with lease rights granted and section 6 of standard lease terms, out of grouse nesting habitat.

Sage grouse nesting habitat is described as sage stands with sagebrush plants between 30 and 100 centimeters in height and a mean canopy cover between 15 and 40 percent.

Greater prairie chicken nesting habitat is described as tall to mid-grass communities with a mean height density index of 5.85 decimeters with 11 percent bare ground and an average height of sandsage at 84 centimeters; grasses 111 centimeters; and forbs 83 centimeters. (Nesting occurs within an average distance of 2.4 km of a lek.)

Lesser prairie chicken nesting habitat is described as short-mid grass and sandsage communities with a mean height density index of 3.5 decimeters with an average grass canopy coverage of 30 percent and 7 percent sandsage. The predominate plant associated with nesting cover is sandsage with an average height of 40-50 centimeters. (Nesting occurs within an average distance of 1.8 km [.2 to 4.8 km] of the lek site.)

Sharptail grouse nesting habitat is described as mountain shrub communities with a density of shrub plants from 1,700 to 32,000 shrubs per hectare and average shrub height of 30 centimeters. Nests are found primarily in shrub clumps where the shrubs are taller than average. (Nesting occurs within an average distance of 2 km of a lek.)

## Conditions Of Approval

Mitigation Authority: The lease "granting clause" and Section 6 of Oil and Gas Lease Form (see page C-1 of the final EIS).

Post-lease operations proposals are reviewed to ensure conformance with the plan. The mitigative measures listed in Appendices D and F of the Colorado Oil and Gas Leasing and Development Plan Amendment and Final Environmental Impact Statement (January 1991) represent the post-lease environmental protection to which the BLM is committed. Note that there is no commitment to the specific wording of a listed Condition of Approval (COA), but rather to the level of impact protection implied in the COA.

The listed mitigative measures apply to all oil and gas exploration and development activities and associated rights-of-way as applicable. The Authorized Officer will choose among these measures at the field development stage to mitigate or avoid environmental impacts identified on a site-specific basis. When attached to an approval document, the measures are known as COAs. The Authorized Officer is not limited to the list of COAs shown in the referenced appendices, but may develop others as the potential for local impacts is identified at the time of a site-specific proposal so long as the new COAs conform with the limitations of the granted lease rights and the guidance set forth in this plan and subsequent amendments.

COAs are not added to applications if they are unnecessary (do not apply to the case in question) or, are duplicative, as when the mitigative measure is already incorporated in the operator's submittal.

Farmington, NM BLM

**Table A-\_\_ . ALTERNATIVE A  
MANAGEMENT CATEGORIES FOR SPECIAL MANAGEMENT AREAS**

**OPEN****- HIGH-INTENSITY DEV. AREA**

Dunes Vehicle Rec. Area

Head Canyon ORV Comp. Area

Laguna Seca Mesa SMA

**TIMING LIMITATION CONSTRAINT****- HIGH-INTENSITY DEV. AREA**

[CODE F1] Bald Eagle Roosting Areas (Habitat 11/1-3/31)

[CODE F2] Big Game Winter Range (12/1-3/31)

[CODE F2a] Beer &amp; Elk Winter Range (12/1-3/31)

[CODE F2b] Antelope Fawning (5/1-7/15)

Wintering/Calving Ranges 12/1-3/31

**- LOW-INTENSITY DEV. AREA**

Raptor Nesting Areas 3/1-6/30

[CODE F5] Mountain Plover 4/1-7/30

**CONTROLLED SURFACE USE CONSTRAINT****- HIGH-INTENSITY DEV. AREA**

[CODE F6] Angel Peak Recreation Area

[CODE F7] Carracas Mesa

Continental Divide Trail Corridor

[CODE F9] Farmington Lake Watershed SMA

[CODE F10] Glade Run Trail System

[CODE F11] Hogback ACEC

[CODE F12] Huerfano Mesa

[CODE F13] Kutz Canyon Paelo. Area SMA

[CODE F14] Reese Canyon RNA

[CODE F15] San Rafael Canyon

[CODE F16] Simon Canyon Rec. ACEC

[CODE F17] Thomas Canyon

**-LOW-INTENSITY DEV. AREA**

[CODE F18] Betonnie Tsosie SMA

[CODE F19] Coal Belt SMA

[CODE F20] Torrejon Fossil Fauna

[CODE F21] Betonnie Tsosie ROW

[CODE F22] Continental Divide ROW

[CODE F23] Escavada ROW

[CODE F24] Torreon ROW

[CODE F12a] Laguna Seca Mesa

**NO SURFACE OCCUPANCY CONSTRAINT****- HIGH-INTENSITY DEV. AREA**

[CODE F25] Angel Peak ACEC

[CODE F26] Adams Canyon Site

[CODE F27] Adolfo Canyon Site

Cagle's Site

Canyon View Ruin

Casa Mesa Diablo

Casamero Community ACEC

Christmas Tree Ruin ACEC

Compressor Station Ruin

Foothold &amp; Overlook Ruins Dist.

Delgadito Pueblito

East Side Rincon Site

Farmer's Arroyo

Frances Ruin ACEC

Gomez Canyon Ruin

Halfway House ACEC

Hill Road Ruin

Holmes Group

Hooded Fireplace/Largo School

District ACEC

Kin Nizhoni Community

Kin Yazhi

Pierre's Site ACEC

Pointed Butte Ruin

Prieta Mesa Site

Rincon Largo District

Rincon Rockshelter

Romine Canyon Ruin

Ruins District

Salt Point ACEC

San Rafael Canyon ACEC

Shepard Site

Simon Ruin

Tapacito/Split Rock Dist. ACEC

Twin Angels ACEC

Unreachable Rockshelter

Aztec Gilia ACEC

Bald Eagle ACEC

Beechatuda Tongue

River Tracts

Cultural Resources

**DISCRETIONARY CLOSURE****- HIGH-INTENSITY DEV. AREA**

Carracas Mesa SMA

Crow Canyon District ACEC

Hogback ACEC

[CODE F28]

[CODE F29]

[CODE F30]

[CODE F31]

[CODE F32]

[CODE F33]

[CODE F34]

[CODE F35]

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Farmington NM BLM Office

Oil and Gas Leasing Stipulations

CODE F68]	Huerfano Mesa	Ye'is-in-Row	
[CODE F69]	Negro Canyon SMA	Martin Apodaco Homestead	[CODE F109]
[CODE F71]	Reese Canyon RNA	Gonzales Canyon-Vigil Hmstd	[CODE F110]
	San Rafael Canyon ACEC	Margarita Martinez Homestead	[CODE F111]
	Simon Canyon Rec. Area/ACEC	Rock House-N. Martin Hmstd	[CODE F112]
	<b>DISCRETIONARY CLOSURE (continued)</b>	-LOW-INTENSITY DEV. AREA	
	- <b>HIGH-INTENSITY DEV. AREA (continued)</b>	Ah-shi-sle-pah	
	Thomas Canyon SMA	Crownpoint Steps and Herradura	[CODE F114]
	- LOW-INTENSITY DEV. AREA	<b>DISCRETIONARY CLOSURE</b>	
[CODE F73]	Chacra Mesa Complex & ACEC	- <b>HIGH-INTENSITY DEV. AREA</b>	
	<b>NON-DISCRETIONARY CLOSURE</b>	<b>Morris 41</b>	[CODE F115]
	- <b>HIGH-INTENSITY DEV. AREA</b>	- LOW-INTENSITY DEV. AREA	
	Cities and Towns	Andrews Ranch	
	-LOW-INTENSITY DEV. AREA	Bee Burrow	
[CODE F75]	Ah-shi-sle-pah WSA	Bis sa'ani	[CODE F118]
	Bisti/De-na-zin Wilderness	Indian Creek	[CODE F119]
	Fossil Forest RNA	Toh-la-kai	[CODE F120]
	<b>1998 RMP AMENDMENT</b>	Upper Kin Klizhin	[CODE F121]
	<b>NO SURFACE OCCUPANCY CONSTRAINT</b>	Sensitive Values CSU	[CODE F1a]
[CODE F78]	Bi Yaazh	Fossil Areas (Undifferentiated)	[CODE F9a]
[CODE F79]	Big Star	Jacquey Site	[CODE F36a]
[CODE F80]	Blanco Mesa	Head Cat	[CODE F40a]
[CODE F81]	Blanco Star Panel	Coal PLRA	[CODE F119a]
[CODE F82]	Carrizo Cranes	Upper Kin Klizhia	[CODE F121]
[CODE F83]	<i>Cho'li'i</i> (Gobernador Knob)	Dune Vehicle RA	[CODE F71a]
[CODE F84]	Cibola Canyon		
[CODE F85]	Church Rock Outlier	Head Canyon ROV	[CODE F71b]
[CODE F86]	Deer House	NSO (Undifferentiated)	[CODE F114a]
[CODE F87]	Delgadita/Pueblo Canyons	Native American	[CODE F122]
[CODE F88]	Dogie Canyon School		
[CODE F89]	Encierro Canyon		
[CODE F90]	Four Ye'i		
[CODE F91]	Gomez Point		
[CODE F92]	Gould Pass Camp		
[CODE F93]	Hummingbird		
[CODE F94]	Kachina Mask		
[CODE F95]	Kiva		
[CODE F96]	Largo Canyon Star Ceiling		
[CODE F97]	Martinez Canyon		
[CODE F98]	NM 01-39236		
[CODE F99]	NM 01-39344		
[CODE F100]	North Road		
[CODE F101]	Pregnant Basketmaker		
[CODE F102]	Pretty Woman		
[CODE F103]	Rabbit Tracks		
[CODE F104]	Santos Peak		
[CODE F105]	Star Spring		
[CODE F106]	Shield Bearer		
[CODE F107]	Superior Mesa Community		
[CODE F108]			

Glenwood Springs, CO BLM

## Appendix A: Resource Management Decision Lease Stipulations

### No Surface Occupancy Stipulations (NSO)

**1. Surface Coal Mines.** NSO within the area of an approved surface coal mine for the conservation of natural resources. This stipulation may be waived without a plan amendment if the lessee agrees that any well approved for drilling will be plugged below the coal when the crest of the highwall approaches within 500 feet of the well, and that the well will be re-entered or redrilled after completion of mining operations through the well location. A suspension of operations and production will be considered when the well is plugged and a new well is to be drilled after mining operations move through the location.

[CODE GS\_NSO\_2]

**2. Riparian and Wetland Zones.** To maintain the proper function of riparian zones, activities associated with oil and gas exploration and development, including roads, transmission lines and storage facilities, are restricted to an area beyond the outer edge of the riparian vegetation.

Exception: a) An exception may be granted if the Authorized Officer (AO) determines that the activity will cause no loss of riparian vegetation, or that the vegetation lost can be replaced within three to five years with vegetation of like species and age class; b) Within the riparian vegetation, an exception is permitted for stream crossings, if an area analysis indicates that no suitable alternative is available.

[CODE GS\_NSO\_3]

**3. Major River Corridors.** NSO within one-half mile of either side of the high water mark (bank-full stage) of six major rivers: Colorado, Roaring Fork, Crystal, Frying Pan, Eagle and Piney. These riverine and adjacent areas provide: a) special status fish and wildlife species habitat; b) important riparian values; c) water quality/filtering values; d) waterfowl and shorebird production values; e)

valuable amphibian habitat; f) high scenic and recreation values. Included in this area are public lands near the Eagle and Colorado Rivers designated as Special Recreation Management Areas (SRMAs) in which BLM provides facilities to enhance recreation opportunities and maintain the recreational setting.

**Note:** The area north of I-70 in the NOSR Production Area is not included in this stipulation.

Exception: The distance from the river may be reduced after the AO has considered the habitat values and the species present, the topographical and vegetative characteristics of the area, and the type and amount of surface disturbance proposed. For the Eagle and Colorado Rivers, additional exception criteria include measures to mitigate impacts on recreation: a) screening operations from scenic views; b) reducing drill rig and other equipment noise to an acceptable level; c) protecting the recreating public from operations; and d) restoring disturbed areas to a condition substantially unnoticeable to the casual observer.

[CODE GS\_NSO\_4]

**4. Garfield Creek, Basalt, and West Rifle Creek State Wildlife Areas.** Protection of wildlife habitat values for which these areas were acquired by the state, including crucial big game and upland game winter habitat, and concentration areas and riparian values.

Exception criteria include special mitigative measures developed in consultation with the Colorado Division of Wildlife.

[CODE GS\_NSO\_5]

**5. Rifle Falls and Glenwood Springs Fish Hatcheries.** NSO within a two mile radius of the hatcheries for the protection of the quality and quantity of surface water and underground aquifers supplying the Rifle Falls and Glenwood Springs Fish Hatcheries.

Exception criteria include special mitigative measures developed in consultation with the Colorado Division of Wildlife.

[CODE GS\_NSO\_6]

**6. Grouse** (includes sage grouse, Columbian sharp-tailed, lesser and greater prairie chicken). NSO within one-quarter mile radius of a lek site (courtship area).

Exception: The NSO area may be altered depending upon the active status of the lek or the geographical relationship of topographical barriers and vegetation screening to the lek site.

[CODE GS\_NSO\_7]

**7. Raptors** (includes golden eagle and osprey; all accipiters; falcons, except kestrel; butes; and owls). Raptors that are listed and protected by the Endangered Species Act are addressed separately. NSO within one-eighth mile radius of a nest site.

Exception: The NSO area may be altered depending on the active status of the nest site or the geographical relationship to the nest site of topographic barriers and vegetation screening.

[CODE GS\_NSO\_8]

**8. Bald Eagle.** NSO within one-quarter mile radius of the roost or nest site.

Exception: For roost sites, the NSO applies to the essential features of the winter roost site complex. After Section 7 consultation with the U.S. Fish and Wildlife Service, the NSO area may be altered, depending on the active status of the roost or the geographical relationship of topographic barriers and vegetation screening to the roost site.

[CODE GS\_NSO\_9]

**9. Peregrine Falcon.** NSO within one-quarter mile radius of cliff nesting complex.

Exception: After Section 7 consultation with the US Fish and Wildlife Service, exceptions may be permitted.

**10. Mexican Spotted Owl.** NSO within one-quarter mile radius of a roost or nest site.

Exception: After Section 7 consultation with the US Fish and Wildlife Service, exceptions may be permitted.

[CODE GS\_NSO\_11]

**11. Wildlife Seclusion Areas.** NSO within fourteen seclusion areas that provide high wildlife value: The Roan Cliffs, Cottonwood Gulch, and

Webster Hill/Yellowslide Gulch (all in the NOSR Production Area); Hayes Gulch; Riley and Starkey Gulch; Riley Gulch; Crawford Gulch; Magpie Gulch; Paradise Creek; Coal Ridge; Lower Garfield; Jackson Gulch; Bald Mountain; and Battlement Mesa.

Exceptions may be granted based on approval by the AO of a mitigation plan that suitably addresses the wildlife seclusion values at risk. These areas provide several unique qualities, such as an optimum mix of quality forage, cover and water; proximity to natural migration corridors; birthing areas; topographic features which moderate severe winter conditions; and seclusion from human intrusion.

[CODE GS\_NSO\_12]

**12. Threatened or Endangered Species.** NSO on habitat areas for those species listed by the federal or state government as endangered or threatened, and for federal proposed or candidate species. Habitat areas include occupied habitat and habitat necessary for the maintenance or recovery of the species.

Exception: Surface occupancy may be authorized, pending Section 7 consultation with the U.S. Fish and Wildlife Service on federal Threatened or Endangered Species or with the Colorado Division of Wildlife for state listed species. The AO will consider the type and amount of surface disturbance, plant frequency and density, relative abundance of habitat, species and location, topography, and other related factors.

[CODE GS\_NSO\_13]

**13. Domestic Watershed Areas.** Protection of municipal watersheds providing domestic water for the communities of Rifle and New Castle.

Exception: Activity may be permitted if the AO determines, in consultation with the communities of Rifle and New Castle, that the applicant's proposal would produce only a negligible decrease in water quality.

[CODE GS\_NSO\_14]

**14. Debris Flow Hazard Zones.** NSO for the protection of the Glenwood Springs debris flow zones.



Exception: Activity may be permitted by the AO in consultation with the City of Glenwood Springs and Garfield County, provided that the applicant's proposal will produce only a negligible increase in the risk of debris flow.

[CODE GS\_NSO\_15]

**15. Steep Slopes.** To maintain site stability and site productivity, no surface disturbance for oil and gas facilities will be authorized on slopes greater than 50 percent. This NSO does not apply to pipelines.

Exception: In the event the lessee demonstrates that operations can be conducted without causing unacceptable impacts and that less restrictive measures will protect the public interest, an exception may be approved by the AO. A request for an exception must include an engineering and reclamation plan which provides a high level of certainty that such operations can be conducted consistent with the objectives of the GSRA Reclamation Policy. All elements of the Erosive Soils and Steep Slope CSU would apply. In addition, the operator must provide sufficient onsite analysis of soil types, vegetation types, aspect, depth to bedrock, nature of subsurface materials and potential for below ground seeps or springs. The lessee must also provide an evaluation of past practices on similar terrain and be able to demonstrate success under similar conditions. Previous success under similar conditions would be a critical element in the AO's determination.

[CODE GS\_NSO\_16]

**16. Special Recreation Management Areas (SRMAs).** For the protection of the recreational setting, recreation opportunities and recreation facilities provided within the SRMAs, the Class I VRM values in the Areas of Critical Environmental Concern (ACECs) and cave resources in the Deep Creek Cave Area, no surface occupancy will be permitted within the following areas:

- Deep Creek ACEC/SRMA
- Deep Creek Cave Area (Includes no subsurface occupancy for 5,000 feet below the surface)
- Bull Gulch ACEC/SRMA
- Thompson Creek ACEC/SRMA

- Hack Lake SRMA
- Rifle Mountain Park

Exceptions: No exceptions are permitted.

[CODE GS\_NSO\_17]

**17. Recreation Management Areas.** For the protection of non-motorized recreation opportunities, no surface occupancy will be authorized within the following areas:

- King Mountain Area
- Siloam Springs Area
- Castle Peak Area
- Bull Gulch Area (The portion of the Bull Gulch WSA not within the Bull Gulch SRMA.)
- Sunlight Peak Area
- Fisher Creek Area (Haff Ranch)

No exceptions are permitted in any of the above areas.

- King Creek Area (840 acres on the north side of King Mountain)
- Pisgah Mountain Area

Exceptions: For the Pisgah Mountain Area, oil and gas drilling and maintenance operations on designated BLM Roads 8530, 8536 and 8585 will be permitted, since these roads are open to motorized public use. For the King Creek Area, use of the two roads previously authorized for motorized use by adjacent landowners will be permitted. These exceptions are available provided wellpads and associated facilities could be located within 100 yards of the designated (Pisgah Mountain Area) or previously authorized (King Creek Area) roads. Certain timing restrictions consistent with current travel management regulations for the affected areas will also be necessary so that operations would not substantially affect the non-motorized recreation values in the area.

*Note:* Non-motorized recreation opportunities are those experiences where the visitor can generally expect to see fewer people, largely due to the fact that access is more difficult or challenging, and enjoy a mostly natural setting with a higher degree of solitude and tranquillity. BLM's overall management goal for the identified areas is to maintain the non-motorized recreation

opportunities. Non-motorized recreation opportunities are not exclusive of other uses; however, when other uses with the potential to conflict with these opportunities are being considered, the impact to the non-motorized recreation opportunities will be evaluated. Multiple use consistent with the GSRA RMP will be accommodated to the extent that such use has minimal impact on the non-motorized recreation opportunities.

[CODE GS\_NSO\_18]

**18. Interstate 70 Viewshed.** NSO on slopes over 30 percent with high visual sensitivity in the Interstate 70 viewshed. Lands with high visual sensitivity are those lands within 5 miles of the Interstate, of moderate to high visual exposure, where details of vegetation and landform are readily discernible and changes in visual contrast can be easily noticed by the casual observer on the Interstate.

Exceptions would be granted if protective measures can be designed to accomplish VRM Class II objectives, namely that the overall landscape character would be retained. Such measures would be designed to blend the disturbance in with the natural landscape. BLM acknowledges that activities on private lands alter the landscape character and affect the visual quality of the overall landscape. Such modifications to the overall landscape character will be considered when evaluating mitigation proposals.

[CODE GS\_NSO\_19]

**19. Anvil Points Cave Area.** For the protection of the scientific and wildlife values provided by these caves and to avoid the difficulties inherent in drilling such locations, no surface occupancy will be permitted in the area encompassing the cave openings, subsurface features and the watersheds immediately above the caves.

Exceptions: No exceptions are identified.

## Timing Limitation Stipulations (TL)

[CODE GS\_TL\_1]

**1. Big Game Winter Habitat** (includes mule deer, elk, pronghorn antelope and bighorn sheep).

Protection of winter habitat which includes severe big game winter range and other high value winter habitat as mapped by the CDOW.

- Big Game Winter Habitat - December 1 to April 30.

Exception: Under mild winter conditions, the last 60 days of the seasonal limitation period may be suspended after consultation with the CDOW. Severity of the winter will be determined on the basis of snow depth, snow crusting, daily mean temperatures, and whether animals were concentrated on the winter range during the winter months. This limitation may apply to work requiring a Sundry Notice pending environmental analysis of any operational or production aspects.

### 2. Big Game Birthing Areas.

- Elk Calving - April 16 to June 30 [CODE GS\_TL\_2a]
- Pronghorn Antelope Fawning - May 1 to July 15
- Rocky Mountain Bighorn Sheep Lambing - May 1 to July 15 [CODE GS\_TL\_2c]
- Desert Bighorn Sheep Lambing - March 16 to May 30

Exception for Big Game Birthing Areas: When it is determined through a site-specific environmental analysis that actions would not interfere with critical habitat function nor compromise animal condition within the project vicinity, the restriction may be altered or removed.

**3. Grouse** crucial winter habitat and nesting habitat (includes sage grouse, Columbian sharp-tailed grouse, and lesser and greater prairie chickens). Sage grouse nesting habitat is described as sagebrush stands with sagebrush plants between 30 and 100 centimeters in height and a mean canopy cover between fifteen and 40 percent within a two mile radius of an active lek.

- Sage grouse crucial winter habitat - December 16 to March 15. [CODE GS\_TL\_3a]
- Sage grouse nesting habitat - March 1 to June 30. [CODE GS\_TL\_3b]

No exceptions are permitted for winter habitat. Exceptions: During years when thelek is inactive and it is determined that there is no nesting activity occurring by May 15, the seasonal limitation may be suspended.

**4. Greater Sandhill Crane** nesting and staging areas - March 1 to October 16.

No exceptions identified.

**5. White Pelican** nesting and feeding habitat areas - March 16 to September 30.

No exceptions identified.

[CODE GS\_TL\_6]

**6. Raptor** nesting and fledgling habitat (includes the golden eagle and allaccipiters; falcons, except the kestrel; all buteos; and owls). Raptors that are listed and protected by the Endangered Species Act are addressed separately. A one-quarter mile buffer zone around the nest site from February 1 to August 15.

**7. Ferruginous Hawk** nesting and fledgling habitat. A one-mile buffer zone from February 1 to August 15 to avoid nest abandonment.

**8. Osprey** nesting and fledgling habitat. A one-half mile buffer zone from April 1 to August 31 to avoid nest abandonment.

Exception for raptor, ferruginous hawk and osprey (6, 7 and 8 above) nesting and fledgling habitat: During years when a nest site is unoccupied by May 15, the seasonal limitation may be suspended. It may also be suspended once the young have fledged and dispersed from the nest.

**9. Mexican Spotted Owl** nesting and fledgling habitat - February 1 to July 31.

The average Mexican spotted owl territory is estimated to encompass approximately 2,000 acres. Within this area, Primary Activity Centers (PACs) are defined around nesting, feeding, and roosting areas within the territory. These PACs are mapped

as a one-half mile radius (600 acre) area around nests, roosts and the center of feeding areas, and are not considered to be overlapping. With multiple sightings of the Mexican spotted owl, but with no confirmed nest or roost sites, a PAC is defined as the area where habitat is used the most.

Exceptions may be identified after formal Section 7 consultation with the U.S. Fish and Wildlife Service.

[CODE GS\_TL\_10]

**10. Bald Eagle Nest Site.** A one-half mile buffer zone around the nest site is required to prevent disruption of nesting from December 15 to June 15.

Exceptions may be identified after formal Section 7 consultation with the U.S. Fish and Wildlife Service.

The limitation may be suspended in years when the nest site is unoccupied by May 15 or once the young have fledged and dispersed from the nest.

**11. Bald Eagle Winter Roost Site.** A one-half mile buffer area around the roost site is required from November 16 to April 15 to avoid relocation to less suitable areas.

[CODE GS\_TL\_11]

Exceptions may be identified after formal Section 7 consultation with the U.S. Fish and Wildlife Service. If there is partial or complete visual screening of the area of activity, the roost site buffer may be reduced to one-quarter mile.

[CODE GS\_TL\_12]

**12. Peregrine Falcon.** A one-half mile buffer area around the cliff nesting complex from March 16 to July 31 to prevent abandonment and desertion of established territories.

Exceptions may be identified after formal Section 7 consultation with the U.S. Fish and Wildlife Service. The limitation may be suspended in years when the nest site is unoccupied by May 15, or once the young have fledged and dispersed from the nest.

[CODE GS\_TL\_13]

**13. Waterfowl and Shorebird Nesting Areas.** This stipulation protects nesting ducks from April 15 to July 15 in a one-quarter mile buffer around the nesting and production areas of the following reservoirs: Fravert Watchable Wildlife Area, Consolidated Reservoir and the King Mountain

Reservoirs - Grimes-Brooks, Nobel and Upper and Lower King Mountain.

Exceptions may be permitted after consultation with the CDOW if nesting waterfowl and shorebirds are not present at the reservoirs, or if operations can be located in such a manner as to minimize disturbance to nesting waterfowl and shorebirds.

## Controlled Surface Use (CSU) Stipulations

**1. Underground Coal Mines.** Within the area of federally leased coal lands, oil and gas operations will be relocated outside the area to be mined or located to accommodate room and pillar mining operations. This stipulation may be waived without a plan amendment if the lessee agrees that the drilling of a well will be subject to the following conditions:

- the well must be plugged when the mine approaches within 500 feet of the well bore;
- the well must be plugged in accordance with Mine Safety and Health Administration (formerly Mine Enforcement and Safety)
- the operator will provide an accurate location of where the casing intercepts the coal by providing a directional and deviational survey of the well to the coal operator;*or*
- relocate well into a permanent pillar or more than 500 feet outside the area to be mined. A suspension of operations and production will be considered when the well is plugged and a new well is to be drilled after mining operations move through the location.

[CODE GS\_CSU\_2]

**2. Riparian and Wetland Zones.** Within 500 feet of the outer edge of the riparian or wetland vegetation, activities associated with oil and gas exploration and development, including roads, pipelines and wellpads, may require special design, construction, and implementation measures, including relocation of operations beyond 200 meters, in order to protect the values and functions of the riparian and wetland zones. Such measures will be based on the nature, extent and value of the riparian or wetland area. In general, the areas

immediately adjacent to the riparian vegetation are most important to the function of the riparian zone and will be avoided.

[CODE GS\_CSU\_3]

**3. BLM Sensitive Species.** For those species listed as sensitive by BLM and for significant natural plant communities, special design, construction and implementation measures, including relocation of operations by more than 200 meters, may be required. For plants, habitat areas include occupied habitat and habitat necessary for the maintenance or recovery of the species or communities. For animals, habitat areas are areas that are important during some portion of the lifecycle, such as nesting and production areas or communal roost areas.

[CODE GS\_CSU\_4SO, GS\_GS35]

**4. Erosive Soils and Slopes Greater Than 30 Percent.** Special design, construction, operation and reclamation measures will be required to limit the amount of surface disturbance, to reduce erosion potential, to maintain site stability and productivity, and to insure successful reclamation in identified areas of highly erosive soils and of slopes greater than 30 percent. Highly erosive soils are soils in the "severe" and "very severe" erosion classes based on Administration) Informational Report 1052; and NRCS Erosion Condition mapping. Areas identified in the RMP as Erosion Hazard Areas and Water Quality Management Areas are also included in this stipulation. Implementation may include relocation of operations beyond 200 meters.

The surface use plan of the APD submitted for wells on erosive soils or slopes greater than 30 percent must include specific measures to comply with the GSRA Reclamation Policy, such as stabilizing the site to prevent settling, land sliding, slumping, and highwall degradation, and controlling erosion to protect the site and adjacent areas from accelerated erosion and sedimentation and siltation of nearby water sources.

Specific performance objectives for the plan include:

- Limitation of total disturbance to 3.0 acres for the wellpad;
- Limitation of the interim *in use* area to 0.5 acres; and

- maximizing the area of interim reclamation that is shaped to a grade of 3:1 or less; any planned highwall must be demonstrated to be safe and stable and include enhanced reclamation and erosion prevention measures as needed.

The operator must also provide an evaluation of the site's reclamation potential based on problematic characteristics of the site (slope, aspect, vegetation, depth of soils, soil salinity and alkali content) and a comparison of the site with comparable sites already constructed. When the proposed site is comparable to sites where reclamation has not been successful, the operator will be required to make adjustments to reclamation techniques. Special measures might include: locating production facilities off-site; building roads to higher standards, including surfacing; constructing sediment catchments; reclaiming the reserve pit immediately after use; and applying fertilizers, mulches, soil additives and geotextile fabrics. The AO will evaluate plans submitted by the operator and approve a design and any special measures that best accomplish the performance objectives, achieving a reasonable balance of site stability and revegetation potential, and minimizing overall disturbance.

[CODE GS\_CSU\_5]

#### **5. Visual Resource Management (VRM) Class**

**II.** Within VRM Class II areas, relocation of operations by more than 200 meters may be required to protect visual values. Protection may include special design requirements and other measures to retain the overall landscape character. Such measures would be designed to blend the disturbance in with the natural landscape so that it does not attract attention from key observation points. BLM acknowledges that activities on private lands may alter the landscape character and such modifications will be considered when evaluating mitigation proposals relative to the visual quality of the overall landscape.

[CODE GS\_CSU\_6]

**6. Sharrard Park Paleontological Area.** Special survey, design, construction and reclamation measures may be required, including relocation of operations beyond 200 meters, in the identified portions of Wasatch outcrops within the Sharrard Park area. The operator will provide a survey of the

paleontological resources in the proposed areas of disturbance (plus a 200 foot buffer around that disturbance), performed by a BLM-permitted paleontologist. The operator will implement mitigation measures approved by the AO, instruct all on-site personnel to be aware of the potential for fossils, notify the AO if any fossils are found, and leave in place any vertebrate fossils.

## **Lease Notices (LN)**

**1. Class I and II Paleontological Areas.** An inventory shall be conducted by an accredited paleontologist approved by the AO prior to surface-disturbing activities in these areas.

**2. Biological Inventories.** In areas of known or suspected habitat of special status species, or habitat of other species of interest, such as raptor nests or elk calving areas, or significant natural plant communities, a biological inventory will be required prior to approval of operations. The inventory would be used to prepare mitigating measures to reduce the impacts of surface disturbance on the affected species or their habitats.

These mitigating measures may include, but are not limited to, relocation of roads, wellpads, pipelines, and other facilities, and fencing operations or habitat.

Given the high potential for sensitive species to occur in the NOSR Production Area, it is likely that a biological inventory will be required for most proposed locations in that area prior to development activities.

**3. Annual Reports of Reclamation Progress.** All lessees in the GSRA are required to report to the AO annually on the ongoing progress of reclamation at locations developed on the lease.

**4. Emergency Communications Plan.** The operator is required to prepare and maintain a current emergency communications plan. The plan shall be provided to the BLM, Colorado State Patrol, the affected county and communities, and the general public.

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The following stipulations will be added as appropriate to any future oil and gas leases issued in areas identified as Open to Leasing with Stipulations. They also will be added to applications for permit to drill (APDs) on existing leases to the extent consistent with lease rights. The number and types of stipulations placed on leases or APDs will depend on the resources present in the area.

- [CODE GJ-GJF01] 1. No Surface Occupancy Stipulation  
No occupancy or other activity will be allowed on the following portions of this lease to protect (identify sensitive resource): (legal description). This stipulation may be waived or reduced in scope if circumstances change, or if the lessee can demonstrate that operations can be conducted without causing unacceptable impacts on the concern(s) identified.
- [CODE GJ-GJF02] 2. Scenic and Natural Values Stipulation  
Special design and reclamation measures may be required to protect the outstanding scenic and natural landscape values of (identify the resource and area) located on the following portions of this lease: (legal description). Special design and reclamation measures may include transplanting trees and shrubs, fertilization, mulching, special erosion control structures, irrigation, site recontouring to match the original contour, buried tanks and low profile equipment, and painting to minimize visual contrasts. Surface disturbing activities may be denied in sensitive areas, such as unique geologic features and rock formations, visually prominent areas, and high recreation use areas. This stipulation may be waived or reduced in scope if circumstances change or if the lessee can demonstrate that operations can be conducted without causing unacceptable impacts on the concern(s) identified.
- [CODE GJ-GJF03] 3. Steep Slope Stipulation  
The following portions of the lease include land with greater than 40 percent slopes: (fill in legal description). In order to avoid or mitigate unacceptable impacts to soil, water, and vegetation resources on these lands, special design practices may be necessary and higher than normal costs may result. Where impacts cannot be mitigated to the satisfaction of the authorized office, no surface-disturbing activities shall be allowed. This stipulation may be waived or reduced in scope if circumstances change, or if the lessee can demonstrate that operations can be conducted without causing unacceptable impacts on the concern(s) identified.
- [CODE GJ3]

- [CODE GJ-GJF04] 4. Elk Calving Area Stipulation  
In order to protect important seasonal wildlife habitat, lease activities such as exploration, drilling, and other development will be allowed only during the period from June 15 to May 15 on the following portions of this lease: (legal description). This limitation does not apply to maintenance and operation of producing wells. In addition, no surface-disturbing activity will be allowed on elk calving sites. This stipulation may be waived or reduced in scope if circumstances change or if the lessee can demonstrate that operations can be conducted without causing unacceptable impacts on the concern(s) identified.
- [CODE GJ-GJF05] 5. Known Cultural Resource Value Stipulation  
Important cultural resource values (identify resource values) are present on the following portions of this lease: (legal description).  
[CODE GJ5] Surface-disturbing activities must avoid these areas unless mitigation of impacts is agreed to by the authorized officer. Where impacts cannot be mitigated to the satisfaction of the authorized officer, surface occupancy on that area must be prohibited.
- [CODE GJ-GJF06] 6. Watershed Stipulation  
All lease operations will avoid interference with (identify municipal watershed) located on the following portions of this lease: (legal description). This may include the relocation of proposed roads, drilling sites and other facilities, or application of appropriate mitigating measures. This stipulation may be waived or reduced in scope if circumstances change, or if the lessee can demonstrate that operations can be conducted without causing unacceptable impacts on the concern(s) identified.
- [CODE GJ-GJF07] 7. Perennial Streams Water Quality Stipulation  
In order to reduce impacts to water quality, surface-disturbing activities within 100 feet of perennial streams is limited to essential roads and utility crossings. The affected portions of this lease are: (legal description). This stipulation may be waived or reduced in scope if circumstances change, or if the lessee can demonstrate that operations can be conducted without causing unacceptable impacts on the concern(s) identified.
- [CODE GJ-GJF08] 8. Gunnison Gravels and Indian Wash Dam Stipulation  
No surface-disturbing activities will be allowed in the Gunnison Gravels Research Natural Area or the Indian Wash Dam. This stipulation may be waived or reduced in scope if circumstances change, or if the lessee can demonstrate that operations can be conducted without causing unacceptable impacts on the concern(s) identified.



- [CODE GJ-GJF09] 9. Bighorn Seasonal Stipulation  
In order to protect important seasonal wildlife habitat, lease activities such as exploration, drilling, and other development will be allowed only during the period from May 1 to December 1 on the following portions of this lease: (legal description). This limitation does not apply to maintenance and operation of producing wells. This stipulation may be waived or reduced in scope if circumstances change, or if the lessee can demonstrate that operations can be conducted without causing unacceptable impacts on the concern(s) identified.
- [CODE GJ-GJF010] 10. Wild Horse Winter Range Stipulation  
In order to protect important wild horse habitat, lease activities such as exploration, drilling, and other development will be allowed only during the period from May 1 to December 1 on the following portions of this lease: (legal description). This limitation does not apply to maintenance and operation of producing wells. This stipulation may be waived or reduced in scope if circumstances change, or if the lessee can demonstrate that operations can be conducted without causing unacceptable impacts on the concern(s) identified.
- [CODE GJ-GJF012] 12. Deer and Elk Winter Range Stipulation  
In order to protect important seasonal wildlife habitat, lease activities such as exploration, drilling, and other development will be allowed only during the period from May 1 to December 1 on the following portions of this lease: (legal description). This limitation does not apply to maintenance and operation of producing wells. This stipulation may be waived or reduced in scope if circumstances change, or if the lessee can demonstrate that operations can be conducted without causing unacceptable impacts on the concern(s) identified.
- [CODE GJ-GJF013] 13. Threatened and Endangered Habitat Stipulations.  
The following portions of this lease are within the known habitat of the (species name): (legal description). The lessee/operator shall submit a plan for avoidance or mitigation of impacts on the identified species to the authorized officer. This may require completion of an intensive inventory by a qualified biologist. The plan must be approved prior to any surface disturbance. The authorized officer may require additional mitigation measures such as relocation-of proposed roads, drilling sites, or other facilities. Where impacts cannot be mitigated to the satisfaction of the authorized officer, surface occupancy on that area must be prohibited.

[CODE GJ-GJF014]

**14. Threatened and Endangered Seasonal Habitat Stipulation**

In order to protect important seasonal habitat of the threatened or endangered animal species (species name), any lease operations which may affect these species will be allowed only during the period from (date) to (date) (varies by species) on the following portions of this lease: (legal description). Exceptions to this limitation in any particular year may be specifically approved in writing by the authorized officer.

[CODE GJ-GJF0NOLEASE]

**No Leasing**

Grand Mesa, Uncompahgre, Gunnison  
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#### **Stipulation Application**

##### **Floodplains - No Surface Occupancy**

The application of No Surface Occupancy to Floodplains highlights the importance of these areas as part of the riparian and wetland ecosystem. Floodplains in the mountains generally include much of the same area as riparian areas and wetlands. Executive Order 11988 and our Forest Plan guidance generally preclude development in floodplains. Allowing oil and gas activity in floodplains will create the potential for discharge of undesirable materials directly into an adjacent stream during flood events.

Floodplains are not displayed on our stipulation map that accompanied the EIS, but the streams displayed on USGS quadrangle maps adequately show the location of this resource. I believe the mapping meets the intent of the Forest Service oil and gas regulations at 36 CFR 228.102(c)(1)(i) and (ii).

##### **Aquatic/Riparian/Wetlands Habitats - No Surface Occupancy**

The Forest Service oil and gas regulations at 36 CFR 228.108(j) preclude surface occupancy in riparian areas and wetlands (as well as areas subject to mass soil movement) unless occupancy is approved as part of the APD and Surface Use Plan of Operations. This reflects the Forest Service's commitment to the protection of these areas. Some road construction in the form of stream crossings can be expected to occur, as access to drilling sites will not be able to avoid these areas in all cases. Strict mitigation will be applied to lessen the impacts to these important areas. The Forest Plan Management Prescription 9A details riparian and wetland protection and the mitigation listed in Appendix H of the EIS will be applied, as necessary, when crossing these areas is unavoidable.

Aquatic/Riparian/Wetland Habitats are not displayed on the stipulation map that accompanied the EIS, but the streams, lakes, and swamps displayed on USGS quadrangle maps adequately show the location of these resources. This meets the intent of the Forest Service oil and gas regulations at 36 CFR 228.102(c)(1)(i) and (ii).

##### **Alpine/Tundra - No Surface Occupancy**

[CODE GM\_GUG3]

[CODE GUG3]

The short growing season, harsh climate, and poorly developed soils severely limit the ability to revegetate any disturbance in Alpine/Tundra areas. Disturbance in this environment would likely be long-lasting due to limitations on revegetation. For these reasons, less restrictive stipulations would not adequately protect the surface resources in Alpine/Tundra areas. Additionally, this affected environment is scattered, relatively small in size, and usually consists of intrusive rocks with low or no known potential for oil and gas resources.

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#### **High Geologic Hazard - No Surface Occupancy**

[CODE GM\_GUG4]  
[CODE GUG4]

As discussed in the EIS, these are areas where slope movement is actively occurring. High Geologic hazard areas include active mudflows, earthflows, landslide and avalanche areas. The Forest Service oil and gas regulations at 36 CFR 228.108(j) specify no surface occupancy in areas subject to mass oil movement unless approved in the Surface Use Plan of Operations. Construction in these areas would likely result in accelerated slope movement and related other resource damage. Less restrictive stipulations are not adequate to mitigate the potential effects of accelerated slope movement as a result of road, well pad, or pipeline construction. The best mitigation in these areas of high geologic hazard is avoidance. High geologic hazards have been mapped and are displayed on maps in the EIS.

#### **Moderate Geologic Hazard - Controlled Surface Use**

[CODE GM\_GUG5]

In contrast to areas of high geologic hazard, road, well pad, and pipeline construction in areas of moderate geologic hazard can take place if the geologic hazard is properly considered in the design of the facilities. No Surface Occupancy stipulation is not needed in this environment, but there is a need for special design measures to ensure that these potentially unstable areas do not become an environmental hazard or an economic liability as a result of road, well pad, or pipeline construction (economic liability refers to the costs to reconstruct or the long-term maintenance of a failed road, well pad, etc.). These special design considerations are ensured with the use of the Controlled Surface Use stipulation.

Much of the Analysis Areas is classified as having a moderate geologic hazard. On the Forest, moderate geologic hazard areas include stabilized earthflows, mudflows, and landslides; slopes adjacent to failed slopes or active earthflows, mudflows, and landslides; areas of rockfall; flash flood zones; and areas with potential mining related problems (such as subsidence). These areas have been identified through aerial photo interpretation and are displayed on maps in the EIS.

#### **Roadless Areas**

##### **Retention Visual Quality Objective - Low Visual Absorption Capability - No Surface Occupancy**

[CODE GUG7]

These areas occur on highly visible steep slopes along major travel maps. Any disturbance in these areas would be highly visible and difficult to rehabilitate. Other stipulations were considered, but given the visual sensitivity of these areas and the difficulty of rehabilitation, No Surface Occupancy best protects the resource.

[CODE GM\_GUG8]

##### **Retention Visual Quality Objective and Scenic Byway Corridors -**

[CODE GUG8]

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#### **Controlled Surface Use**

The objective in these areas is to retain existing visual quality. These areas also have a high Visual Absorption Capability, i.e., they can absorb some development. Controlled Surface Use allows us enough control to mitigate the potential for visual impacts.

#### **Semi-primitive Non-motorized (3A Management Areas) - No Surface Occupancy**

[CODE GM\_GUG9]

[CODE GUG9]

These areas have values (Semi-primitive Non-motorized) similar to those in Roadless Areas although they are usually much smaller. Oil and gas activity is not compatible with the recreation uses and experienced in this Affected Environment.

#### **Administrative Sites- No Surface Occupancy**

At Administrative Sites, the Forest Service generally has a substantial investment in facilities, roads and buildings. These sites are used by Forest personnel throughout the normal operating season for oil and gas activity. Oil and gas activity within the confines of an Administrative Site would likely disrupt administrative use.

#### **Recreation Complexes- No Surface Occupancy**

[CODE GM\_GUG11]

Recreation Complexes are high use and high density recreational areas. They include campgrounds, picnic grounds, interpretive sites, visitor centers, overlooks, permitted recreation residences and lodges/resorts, ski areas, and administrative sites. Surface occupancy by oil and gas activities is not compatible with these resources. Less restrictive stipulations would not adequately protect the recreational values here, i.e., oil and gas activity allowed by Controlled Surface Use, Standard Lease Terms, or Timing Limitations would interfere with the recreational uses and experiences in Recreation Complexes.

#### **Major Ski Trails - Controlled Surface Use and Timing Limitations**

Due to the season of use for these Recreation Complexes, the use of Controlled Surface use and Timing Limitations will adequately protect these areas and the recreational experiences that are found there.

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#### **Watersheds of Special Interest to Municipalities - Controlled Surface Use**

[CODE GM\_GUG12]

Public concern over water quality influenced the special emphasis on the mitigation of potential impacts in this Affected Environment. Other stipulations, such as No Surface Occupancy and Standard Lease Terms were considered, but rejected. Other activities such as timber harvest are allowed in Municipal Watersheds, but the Forest Service controls the location, duration, and intensity of the timber sale related activity. Controlled Surface Use is consistent with the control of other Forest management activities in Watersheds of Special Interest to Municipalities.

#### **Slopes 40-60% - Controlled Surface Use**

[CODE GM\_GUG13]

[CODE GUG13]

On Slopes 40-60% the amount of earth work required to construct a road, pipeline or well pad increases significantly. Additionally, the erosion hazard increases to high on slopes greater than 40%. No Surface Occupancy was considered, but it is too restrictive, and adequate protection could be given to the soil resource with appropriate mitigation applied during and immediately following ground disturbance. Standard Lease Terms would not allow enough control over the application and design of mitigative measures.

#### **Slopes > 60% - No Surface Occupancy**

[CODE GM\_GUG14]

[CODE GUG14]

The erosion hazard on Slopes > 60% is very high and the area that would be disturbed would be excessive, with little potential for successful rehabilitation. There is also a higher potential for mass soil movement. Although not specific to a percent slope, the Forest Service oil and gas regulations (36 CFR 228.108(j) Watershed Protection) supports No Surface Occupancy on "steep slopes". The Controlled Surface Use stipulation was deemed inadequate because of the low rehabilitation potential on these slopes.

#### Wildlife Special Habitats

#### **Big Game Winter Range- Controlled Surface Use and Timing Limitations**

[CODE GM\_GUG15]

[CODE GUG15]

Big game animals are on their winter range in most years from December 1 to April 30. Timing Limitations restricting activity from these areas during this time period effectively reduces the impact to wintering big game. Applying Controlled Surface Use stipulations to control road location in big game winter range lessens the overall impact to the habitat. Standard Lease Terms may not accomplish the desired mitigation in big game winter range. Since big game animals are on their winter range for only a portion of the year, stipulations prohibiting surface occupancy are not necessary.

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#### **Elk Calving Areas - Controlled Surface Use and Timing Limitations**

[CODE GM\_GUG16]

Elk typically occupy their calving areas on the forest from April 16 to June 30. Restricting oil and gas activity during this period results in little direct effect to elk. Controlling road location in elk calving areas with Controlled Surface Use stipulations lessens the impact on the calving habitat values. Standard Lease Terms may not accomplish the desired mitigation and No Surface Occupancy is not necessary since the animals are on their calving grounds for a relatively short period of time.

#### **Migration Routes and Staging Areas - Controlled Surface Use and Timing Limitations**

Like Big Game Winter Range and Elk Calving Areas, Migration Routes and Staging Areas are used by big game for only short time periods during the year. Timing Limitations will be in effect for Migration Routes from March 1 to May 30, and November 1 to December 31; and from October 15 to December 31 for Staging Areas. Controlled Surface Use Stipulations will control the location of roads, pipelines, and well pads in this special wildlife habitat. These areas will be determined at the APD stage. Standard Lease Terms may not accomplish the desired mitigation and No Surface Occupancy is not necessary since the animals occupy these areas for short time periods.

#### **Bighorn Sheep Lambing/Breeding Areas - No Surface Occupancy**

[CODE GM\_GUG18]

A bighorn sheep herd of concern is located on Battlement Mesa. The herd is declining in numbers and may now only number 25 sheep. The entire range of this species on Battlement Mesa is considered critical to their survival. Because of the concern for the survival of the species, No Surface Occupancy stipulations will be applied to the entire bighorn sheep range on Battlement Mesa. Less restrictive stipulations would not accomplish the desired “no effect” to bighorn sheep habitat.

#### **Summer Range (Concentrated Use) - No Surface Occupancy**

[CODE GM\_GUG19]

On the basis of recommendations from the Colorado Division of Wildlife, this Affected Environment will have No Surface Occupancy stipulations applied to mitigate the potential impacts to summering elk herds. The Colorado Division of Wildlife considers these areas important habitat and believes the cumulative impact of forest activities is driving big game off their summer range as long as possible, and off their winter range. In most cases these areas of concentrated summer use are adjacent to private land which is winter and transition range.

I will consider waivers, exceptions and modifications to the No Surface Occupancy stipulation when the operator can demonstrate that summering elk would not be prematurely displaced onto their



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winter range as a results of proposed operations. This would likely include a study to determine if the operations proposed by the operator will disturb summering elk. I intend to maintain control over the timing and location of oil and gas activity in these areas through the careful use of waivers, exceptions and modifications.

#### **Sage Grouse Leks - No Surface Occupancy, Controlled Surface Use and Timing Limitations**

[CODE GUG20]

The lek is extremely important habitat to the survival of the sage grouse. The lek and a half-mile buffer around it will be No Surface Occupancy. The nesting habitat around the lek will have Controlled Surface Use stipulations and Timing Limitations that will control road location and will not allow surface occupancy from March 1 through May 31. Less restrictive stipulations in the lek would result in some loss of this habitat. Since the leks on the Forest are relatively small in size, No Lease is not necessary.

#### **Threatened and Endangered Species**

Threatened and endangered species are protected by the Endangered Species Act. No additional protection of their habitat is required in this decision beyond the protections provided by the Endangered Species Act.

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**NO SURFACE OCCUPANCY STIPULATION  
SENSITIVE AREAS**

[Code GM\_GUG22]

**No surface occupancy or use is allowed on the lands described below (legal subdivision or other description).**

All or portions of Sec. \_\_\_\_\_, T. \_\_\_\_\_, R. \_\_\_\_\_, PM \_\_\_\_\_ as shown on the attached map which becomes a part hereof.

**For the purpose of:**

Protection of aesthetic values perceived as highly sensitive by the public.

Waivers, exceptions, or modifications (WEM's) to this stipulation will be considered only at the time operations are proposed, and will be subject to the Forest Land and Resource Management Plan in effect at the time of consideration, and will be subject to applicable regulatory and environmental compliance requirements. Granting of a WEM is a discretionary action which the operator should not routinely expect. The Forest Service reserves the right to impose other stipulations in the same area of this leasehold if a WEM is granted.

**Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)**

Additional stipulation maps provided by the office:

Gunnison VQO CSU

[Code GM\_GUG23]

CSU Undifferentiated

[Code GUG25]

Gunnison & NLA Undifferentiated

[Code GM\_GUG24, GUG24]

# Helena National Forest

**RESOURCE:**

**Stipulation:**

**Objective:**

[CODE HF41]

[CODE HF40]

**Rationale:**

**Big Game Winter Range**

**Timing Limitation**

To preclude surface disturbing activities within the big game winter range which could cause increased stress and/or displacement of animals during the critical time period (December 1 to May 15).

Standard Lease Terms provide for delay of activities for up to 60 days. Since the critical period extends for approximately 184 days, the Standard Lease Terms would not be adequate. The No Surface Occupancy stipulation is deemed to be overly restrictive since operations conducted outside the wintering period would have a minimal effect on the big game winter range. The dates of the Timing Limitation match Forest Plan direction. However, it is applied to all of the mapped elk winter range.

**RESOURCE:**

**Stipulation:**

**Objective:**

**Rationale:**

**Big Game Winter Range**

**Controlled Surface Use**

To require coordination of surface disturbing activities associated with field development and/or other limitations to spread surface disturbance activities over time and space within big game winter range areas to avoid or minimize the potential for adverse effects to big game species.

Surface activities within these areas could adversely affect big game species. Under Standard Lease Terms operations could be delayed up to 60 days. By attaching a Controlled Surface Use stipulation to the lease, the lessee is made aware of the possibilities of longer delays to mitigate for cumulative effects from oil and gas, plus other activities. Field development may be delayed, coordinated with other activities, or regulated to minimize impacts. Timing Limitations through production and No Surface Occupancy are deemed overly restrictive since impacts can be avoided by using a Controlled Surface Use stipulation. This stipulation has been added to inform lessees of mitigating requirements in winter range which could be required in the event of a discovery and subsequent production.

**RESOURCE:**

**Stipulation:**

**Objective:**

[CODE HF44]

**Rationale:**

**Big Game Birthing Areas**

**Timing Limitation**

To preclude surface disturbing activities within the big game birthing areas which could cause increased stress and/or displacement during the critical time period (April 15 to June 30).

Under Standard Lease Terms activities can be delayed for up to 60 days which is not long enough to protect the big game birthing areas. By attaching a Timing Limitation stipulation to the lease the lessee is made aware of the annual limitation on exploration and construction activities at the time the lease is acquired. A No Surface Occupancy stipulation was deemed to be overly restrictive since operations conducted outside the calving period would have a minimal effect on the big game.

**RESOURCE:**

**Stipulation:**

**Objective:** [CODE HF97]

**Rationale:**

**Big Game Summer Range**

**Timing Limitation**

To preclude surface disturbing activities, including interrupting drilling operations, within big game summer range which could cause increased stress and/or displacement of animals during the critical time period (June 1 to September 30) to insure big game animals have areas of security that provide habitat components needed to keep animals healthy as they go into the breeding period and hunting season.

Surface activities within these areas could adversely affect summer range. If operations were allowed to occur under Standard Terms or Controlled Surface Use quality of summer range could be affected. No Surface Occupancy was deemed overly restrictive since impacts can be avoided by using a Timing Limitation stipulation.

**RESOURCE:**

**Stipulation:**

**Objective:** [CODE HF4B]

**Rationale:**

**Big Game Travel Routes**

**Controlled Surface Use**

To require coordination of timing and timing adjustments of activities within big game migration routes to avoid or minimize the potential for adverse effects to big game because of cumulative impacts from other activities along the migration route.

Surface activities within these areas could adversely impact big game migration. Under Standard Terms operations could be delayed up to 60 days. By attaching a Controlled Surface Use stipulation to the lease the lessee is made aware of the possibilities of longer delays to mitigate for cumulative effects from other activities. Timing Limitations and No Surface Occupancy are deemed overly restrictive since impacts can be avoided by using a Controlled Surface Use stipulation.



**RESOURCE:** Core Mountain Goat Habitat  
**Stipulation:** No Surface Occupancy  
**Objective:** To preclude surface disturbance within the area to protect mountain goats.  
**Rationale:** Mountain goats are sensitive to disturbances. A No Surface Occupancy stipulation is deemed necessary to provide mountain goat security and maintain existing populations. If operations within the areas were to be allowed under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms, value for mountain goat security could be affected.

**RESOURCE:** Gates of the Mountains Game Preserve  
**Stipulation:** No Surface Occupancy  
**Objective:** [CODE HF7] To preclude surface disturbance within the area and to maintain its value as a game preserve.  
**Rationale:** The area is managed to provide wildlife security and a No Surface Occupancy stipulation is deemed necessary to provide wildlife security. If operations within the areas were to be allowed under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms, value for wildlife security could be affected.

**RESOURCE:** Rocky Mountain Front Ecosystem  
**Stipulation:** No Surface Occupancy  
**Objective:** To protect the significant combination of resources and ecological values of the National Forest lands associated with the Rocky Mountain Front ecosystem from potential cumulative effects from activities both within and on nearby private lands.  
**Rationale:** The area surrounding the Helena National Forest portion of the Rocky Mountain Front is being developed by subdivision and mining. A No Surface Occupancy stipulation is deemed necessary to protect the ecosystem of the area which is rich in a combination of resources that are being impacted by activities on private lands near the Forest and continuation of recreational uses on the Forest. If operations were allowed within the area under Controlled Surface Use or Timing Limitation stipulations or Standard Terms, ecosystem values would be affected. The No-Lease option is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation and not leasing could subject the Federal mineral estate to drainage from adjacent leased lands.

**RESOURCE:** Continental Divide Biological Corridor  
**Stipulation:** No Surface Occupancy  
**Objective:** To require that activities not be located within 1/2 mile of the Continental Divide in order to protect features important to the suitability of the Continental Divide as a biological corridor.  
**Rationale:** A No Surface Occupancy stipulation is deemed necessary to ensure continued use of the Continental Divide as a biological corridor. If operations within these areas were to be under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms, the effectiveness as a corridor could be affected. Several comments expressed concern for the Continental Divide as a corridor for terrestrial species, particularly for grizzly bear and the gray wolf. The Helena Forest Plan made no special provisions for the Continental Divide biological corridor. Protection is needed for the suitability of the corridor.

**RESOURCE:** Continental Divide Biological Corridor  
**Stipulation:** Controlled Surface Use  
**Objective:** To require that activities be located or designed to protect features important to the suitability of the Continental Divide as a biological corridor for a distance of 1/2 mile from the divide to 1 mile from the divide.  
**Rationale:** A Controlled Surface Use stipulation is deemed necessary to ensure continued use of the Continental Divide as a biological corridor. If operations within these areas were to be under a Timing Limitations stipulation or under Standard Lease Terms, the effectiveness as a corridor could be affected. The No Surface Occupancy option is not considered appropriate since impacts can be mitigated using a Controlled Surface Use stipulation. As stated before, the Helena Forest Plan made no special provisions for the Continental Divide biological corridor, but this CSU will provide further assurance of maintaining the corridor.

**RESOURCE:** Research Natural Areas  
**Stipulation:** No Surface Occupancy  
**Objective:** [CODE HF11] To preclude surface disturbance within the areas and to maintain its near natural conditions for future research use.  
**Rationale:** A commitment has been made to maintain the areas in near-natural conditions for future research use and a No Surface Occupancy stipulation is deemed necessary to protect the



areas in such a condition. Also, the areas contains unique resources that cannot be provided elsewhere on the Forest. If operations within these areas would be allowed under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms, natural conditions and value for future research within the areas could be affected.

**RESOURCE:** Threatened and Endangered Species occupied area  
**Stipulation:** Controlled Surface Use  
**Objective:** [CODE HF12] 1) To ensure that proposed activities do not adversely affect the viability of T&E species, operations will be designed, including limiting noise levels, and/or located so as to not adversely affect the viability of T&E species. 2) To restrict the timing or type of activities on roads, if needed to control human-animal conflicts or disturbances. 3) To require coordination of timing and timing adjustments of activities within T&E occupied areas to avoid or minimize the potential for adverse effects to T&E species because of cumulative impacts from oil and gas activities, plus other activities within the area. This stipulation may limit the extent of field development.

**Rationale:** 1) Since the specific location of critical areas may not be known or can change over time, a Controlled Surface Use stipulation identifies the need to ensure that activities do not adversely affect the viability of T&E species. The No Surface Occupancy stipulation is deemed overly restrictive. Design and location will be used to protect the habitat. 2) By attaching a Controlled Surface Use stipulation to the lease the lessee is made aware of the possibilities of road use restrictions including timing and type of use. Timing Limitations and No Surface Occupancy are deemed overly restrictive since impacts can be avoided by using a Controlled Surface Use stipulation. 3) Under Standard Lease Terms operations could be delayed up to 60 days. By attaching a Controlled Surface Use stipulation to the lease the lessee is made aware of the possibilities of longer delays to mitigate for cumulative effects from other activities. Timing Limitations and No Surface Occupancy are deemed overly restrictive since impacts can be avoided by using a Controlled Surface Use stipulation.

**RESOURCE:** Grizzly Bear Habitat (MS-1)  
**Stipulation:** No Surface Occupancy  
**Objective:** To preclude surface disturbing activities within the Management Situation 1 Grizzly Bear habitat while the area is important to the recovery and maintenance of the bear.

**Rationale:** A No Surface Occupancy stipulation is deemed necessary to ensure maintenance of the T&E habitat. If operations within these areas were to be under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms, the management of these areas for T&E species could be affected and/or cause fragmentation. The Helena Forest Plan provided considerable mitigation measures for the bear, but did provide for surface occupancy of the MS-1 lands. However, a detailed analysis which was completed for the modeled field development in the EIS concluded that existing road densities on the adjacent private lands exceeded standards generally accepted by the USFWS. This concern, coupled with other adjacent activities such as subdivision of lands near Cadotte Pass, led to the conclusion that the Helena Forest's MS-1 lands should not be leased with surface occupancy at this time. Conditions for waivers, modifications and exceptions require that the area is no longer classified as Situation 1 Habitat and not considered important for recovery or preservation of the bear in a State Conservation Plan.

**RESOURCE:** Grizzly Bear Denning Area (MS-2)  
**Stipulation:** Timing Limitation  
**Objective:** To preclude surface disturbing activities, including interrupting drilling operations, within the Grizzly Bear denning areas which could cause increased stress and/or displacement of animals during the critical time period (October 15 to April 15).

**Rationale:** Surface activities within these areas could adversely impact Grizzly Bears. If operations were allowed to occur under Standard Lease Terms or Controlled Surface Use, bears could be displaced. No Surface Occupancy was deemed overly restrictive since impacts can be avoided by using a Timing Limitation stipulation.

**RESOURCE:** Grizzly Bear Spring Habitat (MS-2)  
**Stipulation:** Timing Limitation  
**Objective:** [CODE HF15] To preclude surface disturbing activities, including interrupting drilling operations, within the critical Spring Grizzly Bear habitat which could cause increased stress and/or displacement of animals during the critical time period (April 1 to June 30).

**Rationale:** Surface activities within these areas could adversely impact Grizzly Bears. If operations were allowed to occur under Standard Lease Terms or Controlled Surface Use, bears could be



displaced. No Surface Occupancy was deemed overly restrictive since impacts can be avoided by using a Timing Limitation stipulation.

**RESOURCE:** Grizzly Bear Summer Area (MS-2)  
**Stipulation:** Timing Limitation  
**Objective:** [CODE HF16] To preclude surface disturbing activities, including interrupting drilling operations, in critical Grizzly Bear summer areas which could cause increased stress and/or displacement of animals during the critical time period (July 1 to September 15).  
**Rationale:** Surface activities within these areas could adversely impact Grizzly Bears. If operations were allowed to occur under Standard Lease Terms or Controlled Surface Use, bears could be displaced. No Surface Occupancy and No Lease option was deemed overly restrictive since impacts can be avoided by using a Timing Limitation stipulation.

**RESOURCE:** Grizzly Bear Denning and Summer Occupied Habitat (MS-2)  
**Stipulation:** No Surface Occupancy  
**Objective:** [CODE HF17] To preclude new surface disturbing activities within the occupied overlapping denning and summer habitat of Grizzly Bear to protect habitat and to facilitate recovery.  
**Rationale:** A No Surface Occupancy stipulation is deemed necessary to ensure maintenance of the Grizzly Bear habitat. If operations within these areas were to be under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms, the management of these areas for Grizzly Bear could be affected and/or cause fragmentation. Forest Plan direction would allow for leasing with surface occupancy of this common habitat, but the narrow window during which activities could be conducted, coupled with the time frames necessary to drill to the anticipated depths, led to the conclusion that these areas should be leased with no surface occupancy.

**RESOURCE:** Wolf Winter Prey Habitat  
**Stipulation:** Timing Limitation  
**Objective:** [CODE HF18] To preclude surface disturbing activities, including interrupting drilling operations, within the big game winter range which could cause displacement of prey animals for wolf during the critical time period (December 1 to May 15).  
**Rationale:** Standard Lease Terms provide for delay of activities for up to 60 days. Since the critical period extends for approximately 184 days, the Standard Lease Terms would not be adequate. The No Surface Occupancy stipulation was deemed to be overly restrictive since operations conducted outside the wintering period would have a minimal effect on the wolf winter prey habitat.

**RESOURCE:** Bald Eagle and Peregrine Falcon Habitat  
**Stipulation:** Timing Limitation  
**Objective:** To preclude surface disturbing activities, including interrupting drilling operations, within occupied areas (critical habitat) which could cause increased stress and/or displacement of animals during the critical time period (February 1 to July 31).  
**Rationale:** Surface activities within these areas could adversely impact Bald Eagles or Peregrine Falcon. If operations were allowed to occur under Standard Lease Terms or Controlled Surface Use, Eagles and Peregrine Falcons could be displaced. No Surface Occupancy was deemed overly restrictive since impacts can be avoided by using a Timing Limitation stipulation.

**RESOURCE:** Bald Eagle and Peregrine Falcon Nests  
**Stipulation:** No Surface Occupancy  
**Objective:** To preclude surface disturbing activities within the one mile of Bald Eagle or Peregrine Falcon nests to protect habitat and to facilitate recovery.  
**Rationale:** A No Surface Occupancy stipulation is deemed necessary to ensure continued use of the nest. If operations within these areas were to be under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms, the use of these areas by Falcons or Eagles could be affected.

**RESOURCE:** Native Trout Species Streams  
**Stipulation:** Controlled Surface Use.  
**Objective:** [CODE HF21] To require that activities within bull trout and westslope cutthroat drainages may be relocated, may have special design criteria, and additional on and off-site mitigation measures to prevent the regional viability of native trout populations from being decreased from oil and gas activities.



**Rationale:** Surface disturbance within key reaches of these drainages could adversely affect native trout viability, therefore, a Controlled Surface Use stipulation was deemed necessary. If operations within these areas were to be allowed to occur under Standard Lease Terms, loss of native trout could potentially occur. No Surface Occupancy was not considered appropriate for west slope cutthroat trout streams west of the continental divide. Populations are present in numerous streams and many are interconnected via tributaries—this provides opportunities for genetic transfer and reestablishing populations in suitable habitat. Other opportunities exist to mitigate effects for oil and gas operations through the use of a Controlled Surface Use stipulation. This stipulation complies with the Inland Native Fish Strategy Guidance.

**RESOURCE: Native Trout Species Streams**

**Stipulation:** No Surface Occupancy

**Objective:** [CODE HF22] To preclude construction of well sites and related facilities such as tank batteries in priority bull trout drainages and in other drainages having an elevated importance to the viability of Upper Missouri West Slope Cutthroat trout and bull trout.

**Rationale:** Surface disturbance within these focal areas could adversely affect native trout viability, therefore, a No Surface Occupancy stipulation was deemed necessary. The Upper Missouri West Slope Cutthroat trout are small populations in isolated drainages. As a result, they are highly susceptible to even small amounts of short-term adverse change. Alice Creek, Copper Creek, Poorman Creek, Arrastra Creek and Upper Little Blackfoot are protected for bull trout spawning streams. The analysis is not able to show that occupancy in these drainages could take place without potentially threatening native fish viability. Without knowing the locations of potential operations and access needed, it is impossible to predict sedimentation from oil and gas activities in these drainages. An inventory of possible mitigation opportunities would also be needed to know that mitigation can offset effects. If operations within these areas were to be allowed to occur under Standard Lease Terms, Controlled Surface Use, or Timing Limitation, impacts to the viability of native trout populations could potentially occur. This stipulation complies with the Inland Native Fish Strategy Guidance.

**RESOURCE: Non-motorized Management Areas (R1 Management Areas)**

**Stipulation:** No Surface Occupancy

**Objective:** [CODE HF23] To maintain the non-motorized character of these management areas.

**Rationale:** A No Surface Occupancy stipulation is deemed necessary to protect the non-motorized character of these areas. If operations within these areas were to be under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms, the management of these areas for non-motorized recreation could be adversely affected. The Forest Plans specified that surface occupancy would be allowed within R1 areas. However, Management Goals are to provide for semi-primitive and primitive non-motorized recreation in R1 areas. Field development within these areas could potentially change the roadless character of these areas for the duration of activity and for several years following reclamation and abandonment of a field. The Silver King/Falls Creek area was specifically determined available for oil and gas lease in the Helena National Forest EIS Record of Decision because of the area's high oil and gas potential. The decision was to give industry a chance to explore the area. Much of the area was leased in the early 1980's, prior to the Forest Plan decision. The leases were allowed to expire or were forfeited without any proposals for exploration during this window of opportunity.

**RESOURCE: Wild and Scenic River Candidates**

**Stipulation:** No Surface Occupancy – 0.25 mile buffer

**Objective:** [CODE HF24] To protect wild and scenic river values along the river corridor and within 0.25 miles.

**Rationale:** These candidate rivers are highly valued by many people for their scenic and recreational qualities. A No Surface Occupancy stipulation is deemed necessary to maintain these qualities and notify potential lessees of the resource concern and restrictions relative to the Wild and Scenic River candidates. A Controlled Surface Use stipulation would not provide the same level of resource protection and would not fully alert potential lessees to the level of restriction within this area. Under Standard Lease Terms some impacts could be mitigated but operations could not be denied if all the wild and scenic values could not be protected.

**RESOURCE: Developed Recreation Sites**

**Stipulation:** No Surface Occupancy

**Objective:** To preclude surface occupancy and surface disturbing activities within developed recreation sites and within 1/2 mile of the perimeter.





Rationale: Construction of a developed campground or other site allocates those specific lands for a specific use and a No Surface Occupancy stipulation is deemed necessary to protect the capital investment made. If operations were to be allowed within these areas under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms, the capital investment and/or recreational setting could be affected.

**RESOURCE:** Scenery Resources  
**Stipulation:** No Surface Occupancy  
**Objective:** To protect the visual quality of the Retention Foreground viewing areas.  
**Rationale:** The area has a low visual absorption capacity since there are few opportunities for vegetative or topographic screening. Therefore, a No Surface Occupancy stipulation is deemed necessary to notify potential lessees of the resource concern and restrictions. A Controlled Surface Use stipulation could provide the same level of resource protection but would not fully alert potential lessees to the level of restriction within this area. Under Standard Lease Terms some impacts could be mitigated but operations could not be denied if the visual quality objective could not be met.

**RESOURCE:** Scenery Resources  
**Stipulation:** Controlled Surface Use  
**Objective:** To ensure that the visual quality of the area is maintained proposed activities would be required to be located or designed to meet the visual quality objectives of retention mid ground, retention background, or partial retention within one year of completing operations. Application of the Controlled Surface Use stipulation identifies the standard that the operator must meet and provides the opportunity to still conduct activities as long as that standard is met. No Surface Occupancy stipulation is deemed overly restrictive in that the visual quality objective can often be met using vegetative or topographic screening and similar methods to mitigate the visual impacts. Under Standard Lease Terms some impacts could be mitigated but operations could not be denied if the visual quality objective could not be met.

**RESOURCE:** Slopes greater than 40 percent and Sensitive Soils  
**Stipulation:** [CODE HF28] No Surface Occupancy  
**Objective:** To preclude construction of well sites, but allow related facilities such as roads and pipelines on slopes between 40% and 60%, and to preclude surface disturbing activities on areas that have a high erosion/stability hazard (including wetlands) which would be difficult to reclaim. This stipulation is deemed necessary to protect basic soil and water resources. Soil disturbance of an area required for a well pad on steep slopes or sensitive soils would be difficult to reclaim and could result in unacceptable soil loss through erosion and potentially increase the sediment load of streams. If operations within these areas were to be allowed under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms, erosion and reclamation of the area could be affected. The No Lease option is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation and not leasing could subject the Federal mineral estate to drainage from adjacent leased lands.

**RESOURCE:** Slopes 30 - 40 percent  
**Stipulation:** Controlled Surface Use  
**Objective:** [CODE HF29] To require that activities on 30 - 40% slopes be located and/or designed to avoid or minimize adverse effects to soil and water.  
**Rationale:** Surface disturbance within these areas could adversely affect soil and water, therefore a Controlled Surface Use stipulation is deemed necessary. If operations within these areas were to be allowed under Standard Lease Terms water quality of the are could be affected. The No Surface Occupancy and No Lease option are not considered appropriate since impacts can be mitigated using a Controlled Surface Occupancy stipulation and not leasing could subject the Federal mineral estate to drainage from adjacent leased lands.

**RESOURCE:** Water Quality  
**Stipulation:** No Surface Occupancy  
**Objective:** [CODE HF30] To preclude surface disturbing activities on areas within 100 feet of water courses, water bodies, flood plains, and riparian areas to protect water quality.  
**Rationale:** Surface disturbance within these areas would cause surface water degradation, therefore, a No Surface Occupancy stipulation was deemed necessary. Standard terms allow for the drilling operation to be relocated 200 meters which exceeds the 100 foot buffer. The use of standard lease terms and relocation to avoid surface disturbance would not be feasible along drainages surrounded by lands with greater than 60% slopes since these slopes would be



protected by NSO stipulations. Since some of these areas do occur on Forest Service lands an NSO stipulation was determined to be necessary to prohibit occupancy within these crucial buffer areas.

**RESOURCE:** Water Quality  
**Stipulation:** Controlled Surface Use  
**Objective:** [CODE HF31] To require that activities within 500 feet of water courses, water bodies, flood plains, and riparian areas be located and/or designed to avoid or minimize the potential for adverse effects to surface water.  
**Rationale:** A Controlled Surface Use stipulation is applied to these lands to require special design of facilities to protect water resources. Standard Terms provides similar protection but the Controlled Surface Use stipulation serves to inform the lessee that special precautions will be required. No Surface Occupancy was not considered appropriate since impacts can be mitigated using a Controlled Surface Use stipulation.

**RESOURCE:** Riparian Areas  
**Stipulation:** No Surface Occupancy  
**Objective:** To preclude surface disturbing activities and protect riparian areas.  
**Rationale:** A No Surface Occupancy stipulation is deemed necessary for the protection of riparian areas. Protection of riparian areas is important to help maintain water quality and stream bank stability when adjacent to streams, and to provide wildlife habitat and shade for fisheries. The use of standard lease terms and relocation to avoid surface disturbance would not be feasible along drainages surrounded by lands with greater than 60% slopes since these slopes would be protected by NSO stipulations. Since some of these areas do occur on Forest Service lands an NSO stipulation was determined to be necessary to prohibit occupancy within these crucial buffer areas.

**RESOURCE:** Wetland Areas  
**Stipulation:** No Surface Occupancy  
**Objective:** To preclude surface disturbing activities and protect jurisdictional wetlands relative to Executive Order 11990.  
**Rationale:** A No Surface Occupancy stipulation provides assurance that the intent of Executive Order 11990 can be met. The use of standard lease terms and relocation to avoid surface disturbance would not be feasible along drainages surrounded by lands with greater than 60% slopes since these slopes would be protected by NSO stipulations. Since some of these areas do occur on Forest Service lands an NSO stipulation was determined to be necessary to prohibit occupancy within these crucial buffer areas.

**RESOURCE:** Administrative Sites  
**Stipulation:** No Surface Occupancy  
**Objective:** To preclude surface occupancy and new surface-disturbing activities within administrative sites.  
**Rationale:** Designation of an administrative site allocates those specific lands for a specific use and a No Surface Occupancy stipulation is deemed necessary to protect the capital investments usually associated with these sites. If operations were to be allowed within these areas under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms, the capital investment and/or the use of the area could be impacted.

## Decision 2. Leasing Decision for Specific Lands - 36 CFR 228.102(e)

The Forest Supervisor shall review the availability decision on which lands are administratively available for leasing and shall authorize the BLM to offer specific lands for lease subject to:

1. Verifying oil and gas leasing on the specific lands has been adequately addressed in a NEPA document, and is consistent with the Forest Plan.
2. Ensuring conditions of surface occupancy identified in section 228.102(c)(1) are properly included as stipulations in resulting leases.



## APPENDIX 1 - CHANGED OR ADDED STIPULATIONS

Stipulations for the MS-1 grizzly habitat, the Rocky Mountain Front, and mountain goats are included in this appendix. They are not included with an alternative, or have been changed, so they are not found in Appendix C of the FEIS.

## STIPULATION #11

<b>RESOURCE:</b>	<b>Core Mountain Goat Range</b>
<b>Map</b>	Core Mountain Goat Range
<b>Stipulation:</b>	No Surface Occupancy
<b>Objective:</b>	To protect the yearlong mountain goat habitat during all seasons thereby precluding disturbance during important periods, displacement to habitats of lower quality or physiological responses brought on by stress.
<b>Waiver:</b>	A waiver may be granted if new habitat studies in coordination with the Montana FW&P conclude that the area affected by this stipulation is not important core mountain goat habitat.
<b>Exception:</b>	An exception may be granted if the operator can demonstrate in a Plan of Operations that impacts from the proposed action are acceptable or can be adequately mitigated.
<b>Modification:</b>	A modification may be granted if new habitat studies in coordination with the Montana FW&P conclude that a portion of the area affected by this stipulation is not important core mountain goat habitat.
<b>Justification:</b>	Surface activities within these areas could adversely affect mountain goats. A No Surface Occupancy stipulation is deemed necessary to ensure the protection of the core mountain goat habitat. If operations within these areas were to be under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms, the management of these areas for goats could be affected and goat populations could decline. The No Lease option is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation and no leasing could subject the Federal mineral estate to drainage from adjacent leased lands.

## STIPULATION #4E

<b>RESOURCE:</b>	<b>Grizzly Bear Habitat</b>
<b>Map</b>	Threatened and Endangered Wildlife Species Areas (Sit 1)
<b>Stipulation:</b>	No Surface Occupancy
<b>Objective:</b>	To preclude surface disturbing activities in Management Situation 1 Grizzly Bear habitat while the area is important for the recovery and maintenance of the bear.
<b>Waiver:</b>	This stipulation will not be waived while the area is important to grizzly bear recovery or to its conservation following a change in legal status under the Endangered Species Act. Conditions for Waiver require that the area is no longer classified as Management Situation 1 habitat pursuant to the Interagency Grizzly Bear Management Guidelines (Federal Register, Vol 51, No.228, November 26, 1986) and not considered important to its conservation, as outlined in an approved grizzly bear conservation strategy, following a change in its legal status under the Endangered Species Act.



**Exception:** An exception will not be granted while the area is important to grizzly bear recovery or to its conservation following a change in legal status under the Endangered Species Act. Conditions for Exception require that the area is no longer classified as Management Situation 1 habitat pursuant to the Interagency Grizzly Bear Management Guidelines (Federal Register, Vol 51, No.228, November 26, 1986) and not considered important to its conservation, as outlined in an approved grizzly bear conservation strategy, following a change in its legal status under the Endangered Species Act.

**Modification:** This stipulation may be modified if a portion of the area is no longer important to grizzly bear recovery or to its conservation following a change in legal status under the Endangered Species Act. Conditions for Modification require that a portion of the area is no longer classified as Management Situation 1 habitat pursuant to the Interagency Grizzly Bear Management Guidelines (Federal Register, Vol 51, No.228, November 26, 1986) and not considered important to its conservation, as outlined in an approved grizzly bear conservation strategy, following a change in its legal status under the Endangered Species Act.

**Justification:** A No Surface Occupancy stipulation is deemed necessary to ensure maintenance of the Situation 1 grizzly bear habitat. If operations within these areas were to be under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms, the management of these areas for grizzly bears could be affected and/or cause fragmentation. The No Lease option is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation and not leasing could subject the Federal mineral estate to drainage from adjacent leased lands.

**STIPULATION #3F**

**RESOURCE:** Rocky Mountain Front Ecosystem  
 [CODE HF37]

**Map:** Rocky Mountain Front

**Stipulation:** No Surface Occupancy

**Objective:** To protect the significant combination of resources and ecological values associated with the Rocky Mountain Front ecosystem from potential cumulative effects from activities both within and on nearby private lands.

**Waiver:** This stipulation will not be waived while the area is important to the protection of the Rocky Mountain Front ecosystem.

**Exception:** An exception may be granted if the operator can demonstrate in a Plan of Operations that there are no adverse cumulative effects.

**Modification:** This stipulation may be modified if a portion of the area is no longer considered important for the protection of the Rocky Mountain Front ecosystem.

**Justification:** The area surrounding the Helena National Forest portion of the Rocky Mountain Front is being developed by subdivision and mining. A No Surface Occupancy stipulation is deemed necessary to protect the ecosystem of the area which is rich in a combination of resources that are being impacted by activities on private lands near the Forest and continuation of recreational uses on the Forest. If operations were allowed within the area under Controlled Surface Use or Timing Limitation stipulations or Standard Terms, ecosystem values would be affected. The No-Lease option is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation and not leasing could subject the Federal mineral estate to drainage from adjacent leased lands.



## PROJECT AREA STIPULATIONS

This section describes the stipulations that will be attached to leases for each action alternative. The corresponding maps are found in the Map Section at the end of Chapter 3. Conditions are also described for waivers, exceptions, and modifications. The justification for the stipulation supports the alternatives that include the stipulation.

All modifications or waivers of lease terms for NSO or Timing Limitation stipulations will be subject to public review for at least a 30 day period as described in 43 CFR 3101.1-4.

The conditions of 36 CFR 228.104 must be met before a waiver, exception or modification can be granted. The authorized officer reviews the request and ensures compliance with the National Environmental Policy Act and other applicable laws, and the preparation of any environmental documents.

The authorized officer may authorize the Bureau of Land Management to modify, wave, or grant an exception to a stipulation if:

1. The action would be consistent with applicable Federal Laws;
2. The action would be consistent with the current forest land and resource management plan;
3. The management objectives which led the Forest Service to require the inclusion of the stipulation in the lease can be met without restricting operations in the manner provided by the the stipulation given the change in the present condition of the surface resource involved, or given the change in the present condition of the surface resource involved, or given the nature, location, timing, or design of the proposed operations; and
4. The action is acceptable to the authorized Forest officer based upon a review of the environmental consequences.

### ISSUE 1 - BIG GAME STIPULATIONS

#### STIPULATION # 1A

<b>RESOURCE:</b>	<b>Big Game Winter Range</b>
<b>Map:</b>	<b>Big Game Winter Range</b>
<b>Alternatives:</b>	<b>3, 5, 6, and 7</b>
<b>Stipulation:</b>	<b>Timing Limitation</b>
<b>Objective:</b>	<b>To preclude surface disturbing activities, including interrupting drilling operations, within the big game winter range which could cause increased stress and/or displacement of animals during the critical time period (December 1 to May 15).</b>
<b>Waiver:</b>	<b>A waiver may be granted if habitat studies in coordination with the Montana FW&amp;Parks conclude that the area affected by this stipulation is no longer used as a winter range.</b>
<b>Exception:</b>	<b>An exception may be granted if seasonal conditions are such that the animals have moved out of and are not using the general area during the particular year.</b>
<b>Modification:</b>	<b>A modification of the stipulation may be granted if habitat studies show that a portion of the area is not important winter range.</b>

**Justification:** Standard Lease Terms provide for delay of activities for up to 60 days. Since the critical period extends for approximately 184 days, the Standard Lease Terms would not be adequate. The No Lease option or a No Surface Occupancy stipulation is deemed to be overly restrictive since operations conducted outside the wintering period would have a minimal effect on the big game winter range.

#### STIPULATION # 1B

**RESOURCE:** Big Game Winter Range

**Map** Big Game Winter Range

**Stipulation:** Controlled Surface Use

**Alternatives:** 7

**Objective:** To require coordination of production activities and or other limitations to spread surface disturbance activities over time and space within Big Game Winter Range areas to avoid or minimize the potential for adverse effects to Big Game species.

**Waiver:** A waiver may be granted if new habitat studies in coordination with the Montana FW& Parks conclude that the area affected by this stipulation is not in an important big game winter range area.

**Exception:** An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.

**Modification:** A modification of the stipulation may be granted if new habitat studies show that a portion of the area is not in an important big game winter range area.

**Justification:** Surface activities within these areas could adversely affect big game species. Under Standard Lease Terms operations could be delayed up to 60 days. By attaching a Controlled Surface Use stipulation to the lease, the lessee is made aware of the possibilities of longer delays to mitigate for cumulative effects from oil and gas, plus other activities. Field development may be delayed, coordinated with other activities, or regulated to minimize impacts. Timing Limitations through production, No Surface Occupancy, and No Lease options are deemed overly restrictive since impacts can be avoided by using a Controlled Surface Use stipulation.

#### STIPULATION # 1C

**RESOURCE:** Big Game Winter Range & Birthing Areas

**Maps** Big Game Winter Range & Big Game Birthing Areas

**Stipulation:** Controlled Surface Use

**Alternatives:** 6

**Objective:** To require coordination of production activities and or other limitations to spread surface disturbance activities over time and space within Big Game Winter Range and Birthing Areas to avoid or minimize the potential for adverse effects to Big Game species.

**Waiver:** A waiver may be granted if new habitat studies in coordination with the Montana FW& Parks conclude that the area affected by this stipulation is not in an important big game winter range area or birthing area.

<b>Exception:</b>	An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.
<b>Modification:</b>	A modification of the stipulation may be granted if new habitat studies show that a portion of the area is not in an important big game winter range area or birthing area.
<b>Justification:</b>	Surface activities within these areas could adversely affect big game species. Under Standard Lease Terms operations could be delayed up to 60 days. By attaching a Controlled Surface Use stipulation to the lease, the lessee is made aware of the possibilities of longer delays to mitigate for cumulative effects from oil and gas, plus other activities. Field development may be delayed, coordinated with other activities, or regulated to minimize impacts. Timing Limitations through production, No Surface Occupancy, and No Lease options are deemed overly restrictive since impacts can be avoided by using a Controlled Surface Use stipulation.

**STIPULATION # 1D**

<b>RESOURCE:</b>	<b>Big Game Winter Range</b>
<b>Map:</b>	<b>Big Game Winter Range</b>
<b>Alternative:</b>	<b>4</b>
<b>Stipulation:</b>	<b>No Surface Occupancy</b>
<b>Objective:</b>	To preclude surface disturbing activities within the big game winter range which could cause increased stress and/or displacement of animals.
<b>Waiver:</b>	A waiver may be granted if habitat studies in coordination with the Montana FW&Parks conclude that the area affected by this stipulation is no longer used as a winter range.
<b>Exception:</b>	An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.
<b>Modification:</b>	A modification of the stipulation may be granted if habitat studies show that a portion of the area is not important winter range.
<b>Justification:</b>	This stipulation could be necessary to protect critical big game wintering areas. Standard Lease Terms, Timing limitations, and Controlled Surface Use would not be adequate to insure continued seasonal use of the area. The No Lease option is deemed to be overly restrictive since operations can be mitigated using a No Surface Operations stipulation.

**STIPULATION # 1E**

<b>RESOURCE:</b>	<b>Big Game Birthing Areas</b>
<b>Map:</b>	<b>Big Game Birthing Areas</b>
<b>Alternatives:</b>	<b>3, 4, 5, 6, and 7</b>
<b>Stipulation:</b>	<b>Timing Limitation</b>
<b>Objective:</b>	To preclude surface disturbing activities, including interrupting drilling operations, within the big game birthing areas which could cause increased stress and/or displacement during the critical time period (April 15 to June 30).

**Waiver:** A waiver may be granted if habitat studies in coordination with the Montana FW&Parks conclude that the area affected by this stipulation is no longer used as a birthing area.

**Exception:** An exception may be granted if seasonal conditions are such (i.e. an early spring and snowmelt) that the animals are not using the general area during the particular year.

**Modification:** A modification of the stipulation may be granted if habitat studies show that a portion of the area is not used as a birthing area.

**Justification:** Under Standard Lease Terms activities can be delayed for up to 60 days which is not long enough to protect the big game birthing areas. By attaching a Timing Limitation stipulation to the lease the lessee is made aware of the annual limitation on exploration and construction activities at the time the lease is acquired. The No Lease option or a No Surface Occupancy stipulation was deemed to be overly restrictive since operations conducted outside the calving period would have a minimal effect on the big game.

#### STIPULATION # 1F

**RESOURCE:** Big Game Summer Range

**Map:** Big Game Summer Range

**Alternatives:** 3, 4, 5, 6, and 7

**Stipulation:** Timing Limitation

**Objective:** To preclude surface disturbing activities, including interrupting drilling operations, within big game summer range which could cause increased stress and/or displacement of animals during the critical time period (June 1 to September 31) to insure big game animals have areas of security that provide habitat components needed to keep animals healthy as they go into breeding period and hunting season.

**Waiver:** A waiver may be granted if habitat studies in coordination with the Montana FW&Parks conclude that the area affected by this stipulation is not important summer range.

**Exception:** An exception may be granted if seasonal conditions are such that the animals have moved out of and are not using the general area during the particular year.

**Modification:** A modification of the stipulation may be granted if habitat studies show that a portion of the area is not used as summer range.

**Justification:** Surface activities within these areas could adversely affect summer range. The timing limitation assures areas of security that provide habitat components needed to keep animals healthy prior to the breeding period and hunting season. If operations were allowed to occur under Standard Terms or Controlled Surface Use, big game animals may be displaced to poor quality summer range, or areas occupied by other herds. Effects would be compounded if other activities were going on in the adjacent areas. No Surface Occupancy was deemed overly restrictive since impacts can be avoided by using a Timing Limitation stipulation.



**STIPULATION # 1G**

<b>RESOURCE:</b>	<b>Big Game Travel Routes</b>
<b>Map:</b>	<b>Elk Migration Routes</b>
<b>Alternatives:</b>	<b>3, 4, 5, and 7</b>
<b>Stipulation:</b>	<b>Controlled Surface Use</b>
<b>Objective:</b>	To require coordination of timing and timing adjustments in activities within big game migration routes to avoid or minimize the potential for adverse effects to big game because of cumulative impacts from other activities along the migration route.
<b>Waiver:</b>	A waiver may be granted if habitat studies in coordination with the Montana FW&Parks conclude that the area affected by this stipulation is not in an important migration route.
<b>Exception:</b>	An exception may be granted if there are no other activities along the migration route that cumulatively have adverse effects on big game.
<b>Modification:</b>	A modification of the stipulation may be granted if habitat studies show that a portion of the area is not used as a migration route.
<b>Justification:</b>	Surface activities within these areas could adversely impact big game migration. Under Standard Terms operations could be delayed up to 60 days. By attaching a Controlled Surface Use stipulation to the lease the lessee is made aware of the possibilities of longer delays to mitigate for cumulative effects from other activities. Timing Limitations, No Surface Occupancy, and No Lease option are deemed overly restrictive since impacts can be avoided by using a Controlled Surface Use stipulation.

**STIPULATION # 1H**

<b>RESOURCE:</b>	<b>Gates of the Mountains Game Preserve</b>
<b>Map:</b>	<b>Gates of the Mountains Game Preserve</b>
<b>Stipulation:</b>	<b>No Surface Occupancy</b>
<b>Alternatives:</b>	<b>7</b>
<b>Objective:</b>	To preclude surface disturbance within the area and to maintain its values as a game preserve.
<b>Waiver:</b>	A waiver may be granted if the area is no longer designated as a game preserve.
<b>Exception:</b>	An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.
<b>Modification:</b>	A modification may be granted if the game preserve boundaries change.
<b>Justification:</b>	The area is managed to provide wildlife security and a No Surface Occupancy stipulation is deemed necessary to provide wildlife security. If operations within the areas would be allowed under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms value for wildlife security could be affected. The No Lease option is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation and not leasing could subject the Federal mineral estate to drainage from adjacent leased lands.

**ISSUE 2 - ROADLESS AND WILDERNESS BILL AREAS****STIPULATION # 2A**

<b>RESOURCE:</b>	<b>Wilderness Bill Areas</b>
<b>Map:</b>	<b>Wilderness Bill Areas</b>
<b>Stipulation:</b>	<b>No Surface Occupancy</b>
<b>Alternative:</b>	<b>4</b>
<b>Objective:</b>	To maintain the wilderness characteristics of certain areas of high interest for wilderness designation.
<b>Waiver:</b>	A waiver may be granted if a Wilderness Bill is passed for Montana that does not include area in the lease.
<b>Exception:</b>	An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.
<b>Modification:</b>	A modification may be granted if a Wilderness Bill is passed for Montana that does not include a portion of the area in the lease.
<b>Justification:</b>	A No Surface Occupancy stipulation is deemed necessary to protect wilderness characteristics in these areas. If operations within these areas were to be under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms the management of these areas for wilderness could be adversely affected. The No Lease option is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation and not leasing could subject the Federal mineral estate to drainage from adjacent leased lands.

**STIPULATION # 2B**

<b>RESOURCE:</b>	<b>Elkhorn Recreation and Wildlife Management Area</b>
<b>Area:</b>	<b>All of the Elkhorn Mountains</b>
<b>Stipulation:</b>	<b>No Surface Occupancy</b>
<b>Alternative:</b>	<b>4</b>
<b>Objective:</b>	To protect the recreational and wildlife values within this special management area.
<b>Waiver:</b>	A waiver may be granted if the area is no longer managed as a designated Wildlife Management Area or Recreation and Wildlife Management Area.
<b>Exception:</b>	An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.
<b>Modification:</b>	A modification may be granted if a portion of the area is no longer managed as a designated Wildlife Management Area or Recreation and Wildlife Management Area.
<b>Justification:</b>	No Surface Occupancy is deemed necessary to maintain recreational and wildlife values. If operations in this area were to be allowed under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms the recreation and wildlife values could be adversely affected. The No Lease option is not deemed necessary since the application of a No Surface Occupancy stipula-

tion protects the resource concern and still provides some opportunity to explore for oil and gas using directional drilling technology.

#### STIPULATION # 2C

<b>RESOURCE:</b>	<b>Proposed Elkhorn Recreation and Wildlife Management Area</b>
<b>Area:</b>	<b>All of the Elkhorn Mountains</b>
<b>Stipulation:</b>	<b>Controlled Surface Use</b>
<b>Alternative:</b>	<b>3</b>
<b>Objective:</b>	<b>To require that activities be located or designed to protect the recreational and wildlife values within this special management area.</b>
<b>Waiver:</b>	<b>A waiver may be granted if the area is no longer managed as a designated Wildlife Management Area or Recreation and Wildlife Management Area.</b>
<b>Exception:</b>	<b>An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.</b>
<b>Modification:</b>	<b>A modification may be granted if a portion of the area is no longer managed as a designated Wildlife Management Area or Recreation and Wildlife Management Area.</b>
<b>Justification:</b>	<b>Controlled Surface Use is deemed necessary to maintain recreational and wildlife values. By attaching a Controlled Surface Use Stipulation to the lease, the lessee is made aware of the possibility of relocation or delays to mitigate effects to recreation and wildlife resources. The No Surface Occupancy and No Lease option were not deemed necessary since the application of a Controlled Surface Use stipulation protects the resource concern and still provides opportunities to explore for oil and gas.</b>

#### ISSUE 3 - BIODIVERSITY

#### STIPULATION # 3A

<b>RESOURCE:</b>	<b>Continental Divide Biological Corridor</b>
<b>Map</b>	<b>Continental Divide Excluding T Management Areas</b>
<b>Alternative:</b>	<b>4</b>
<b>Stipulation:</b>	<b>No Surface Occupancy</b>
<b>Objective:</b>	<b>To preclude surface disturbing activities within one-half mile of the Continental Divide to protect the integrity as a biological corridor.</b>
<b>Waiver:</b>	<b>A waiver may be granted if new habitat studies conclude that the area affected by this stipulation is not important as a biological corridor.</b>
<b>Exception:</b>	<b>An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.</b>
<b>Modification:</b>	<b>A modification may be granted if new habitat studies conclude that a portion the area affected by this stipulation is not important as a biological corridor.</b>

**Justification:** A No Surface Occupancy stipulation is deemed necessary to ensure continued use of the Continental Divide as a biological corridor. If operations within these areas were to be under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms, the effectiveness as a corridor could be affected. The No Lease option is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation and not leasing could subject the Federal mineral estate to drainage from adjacent leased lands.

**STIPULATION # 3B****[CODE HF3B] RESOURCE:****Continental Divide Biological Corridor****Map****Continental Divide****Alternative:****7****Stipulation:****No Surface Occupancy****Objective:**

To require that surface disturbing activities do not take place within 1/2 mile of the Continental Divide in order to protect features important to the suitability of the Continental Divide as a biological corridor.

**Waiver:**

A waiver may be granted if new habitat studies conclude that the area affected by this stipulation is not important as a biological corridor.

**Exception:**

An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.

**Modification:**

A modification may be granted if new habitat studies conclude that portions of the area affected by this stipulation is not important as a biological corridor.

**Justification:**

A No Surface Occupancy stipulation is deemed necessary to ensure continued suitability of the Continental Divide as a biological corridor. If operations within these areas were to be under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms, the effectiveness as a corridor could be affected. The No Lease option is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation and not leasing could subject the Federal mineral estate to drainage from adjacent leased lands.

**STIPULATION # 3C****RESOURCE:****Continental Divide Biological Corridor****Map****Continental Divide****Alternative:****7****Stipulation:****Controlled Surface Use****Objective:**

To require that activities be located or designed to protect features important to the suitability of the Continental Divide as a biological corridor between 1/2 mile from the divide to 1 mile from the divide.

**Waiver:**

A waiver may be granted if new habitat studies conclude that the area affected by this stipulation is not important as a biological corridor.

**Exception:**

An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.

**Modification:** A modification may be granted if new habitat studies conclude that portions of the area affected by this stipulation is not important as a biological corridor.

**Justification:** A Controlled Surface Use stipulation is deemed necessary to ensure continued suitability of the Continental Divide as a biological corridor. If operations within these areas were to be under either a Timing Limitation stipulation or under Standard Lease Terms, the effectiveness as a corridor could be affected. The No Lease option or No Surface Occupancy are not considered appropriate since impacts can be mitigated using a Controlled Surface Use stipulation and not leasing could subject the Federal mineral estate to drainage from adjacent leased lands.

**STIPULATION # 3D**

**RESOURCE:** Research Natural Areas

**Map:** Research Natural Area Candidates

**Stipulation:** No Surface Occupancy

**Alternatives:** 3, 4, 5, 6, and 7

**Objective:** To preclude surface disturbance within the area and to maintain its near natural conditions for future research use.

**Waiver:** A waiver may be granted if it is determined that the entire leasehold no longer contains portions of Research Natural Areas.

**Exception:** An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.

**Modification:** A modification may be granted if the Research Natural Area boundaries have changed.

**Justification:** A commitment has been made to maintain the area in near-natural conditions for future research use and a No Surface Occupancy stipulation is deemed necessary to protect the area in such a condition. Also, the area contains unique resources that can not be provided elsewhere on the Forest. If operations within these areas would be allowed under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms, natural conditions and value for future research within the area could be affected. The No Lease option is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation and not leasing could subject the Federal mineral estate to drainage from adjacent leased lands.

**STIPULATION # 3E**

**RESOURCE:** Research Natural Areas

**Map:** Research Natural Area Candidates  
(500 foot buffer around area)

**Stipulation:** Controlled Surface Use

**Alternatives:** 3, 4, 5, and 6

**Objective:** To minimize surface disturbance within the area which may affect near natural conditions of the adjacent Research Natural Area for future research use.

**Waiver:** A waiver may be granted if management direction changes and the leasehold is no longer adjacent to a Research Natural Area.

<b>Exception:</b>	An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.
<b>Modification:</b>	A modification may be granted if management direction changes and a portion of the leasehold is no longer adjacent to a Research Natural Area.
<b>Justification:</b>	A commitment has been made to maintain the Research Natural Areas in near-natural conditions for future research use and a Controlled Surface Use stipulation around the buffer is deemed necessary to protect the area in such a condition. If operations within these areas would be allowed under either a Timing Limitations stipulation, or under Standard Lease Terms, natural conditions and value for future research within the Research Natural Area could be affected. The No Surface Occupancy or the No Lease options are not considered appropriate since impacts can be mitigated using a Controlled Surface Use stipulation and not leasing could subject the Federal mineral estate to drainage from adjacent leased lands.

#### ISSUE 4 - THREATENED, ENDANGERED, AND SENSITIVE SPECIES

##### STIPULATION # 4A

<b>RESOURCE:</b>	<b>Threatened and Endangered Species</b>
<b>Map</b>	Threatened and Endangered Wildlife Species Areas
<b>Stipulation:</b>	No Surface Occupancy
<b>Alternative:</b>	4
<b>Objective:</b>	To preclude new surface disturbing activities within the occupied habitat of Grizzly Bear, Gray Wolf, Peregrine Falcon and Bald Eagle to protect habitat and to facilitate recovery.
<b>Waiver:</b>	A waiver may be granted if new habitat studies in coordination with the Fish and Wildlife Service conclude that the area affected by this stipulation is no longer used as T&E habitat.
<b>Exception:</b>	An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.
<b>Modification:</b>	A modification of the stipulation may be granted if new habitat studies show that a portion of the area is not important T&E habitat.
<b>Justification:</b>	A No Surface Occupancy stipulation is deemed necessary to ensure maintenance of the T&E habitat. If operations within these areas were to be under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms, the management of these areas for T&E species could be affected and/or cause fragmentation. The No Lease option is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation and not leasing could subject the Federal mineral estate to drainage from adjacent leased lands.

**STIPULATION # 4B**

<b>RESOURCE:</b>	<b>Threatened and Endangered Species</b>
<b>Map</b>	<b>Threatened and Endangered Wildlife Species Areas</b>
<b>Stipulation:</b>	<b>Controlled Surface Use</b>
<b>Alternatives:</b>	<b>3, 5, and 7</b>
<b>Objective:</b>	To ensure that proposed activities do not adversely affect the viability of T&E species, operations will be designed, including limiting noise levels, and/or located so as to not adversely affect the viability of T&E species.
<b>Waiver:</b>	A waiver may be granted if new habitat studies in coordination with the Fish and Wildlife Service conclude that the area affected by this stipulation is not in T&E occupied area.
<b>Exception:</b>	An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.
<b>Justification:</b>	Since the specific location of critical areas may not be known or can change over time, a Controlled Surface Use stipulation identifies the need to ensure that activities do not adversely affect the viability of T&E species. The No Lease option or a No Surface Occupancy stipulation is deemed overly restrictive. Design and location will be used to protect the habitat.

**STIPULATION # 4C**

<b>RESOURCE:</b>	<b>Threatened and Endangered Species</b>
<b>Map</b>	<b>Threatened and Endangered Wildlife Species Areas</b>
<b>Stipulation:</b>	<b>Controlled Surface Use</b>
<b>Alternatives:</b>	<b>3, 5, and 7</b>
<b>Objective:</b>	To restrict the timing or type of activities on roads, if needed to control human-animal conflicts or disturbances.
<b>Waiver:</b>	A waiver may be granted if new habitat studies in coordination with the Fish and Wildlife Service conclude that the area affected by this stipulation is not in T&E occupied area.
<b>Exception:</b>	An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.
<b>Modification:</b>	A modification of the stipulation may be granted if new habitat studies show that a portion of the area is not in occupied T&E areas.
<b>Justification:</b>	Surface activities within these areas could adversely affect T&E species. By attaching a Controlled Surface Use stipulation to the lease the lessee is made aware of the possibilities of road use restrictions including timing and type of use. Timing Limitations, No Surface Occupancy, and No Lease option are deemed overly restrictive since impacts can be avoided by using a Controlled Surface Use stipulation.

**STIPULATION # 4D**

**RESOURCE:** **Threatened and Endangered Species**

**Map** **Threatened and Endangered Wildlife Species Areas**

**Stipulation:** **Controlled Surface Use**

**Alternatives:** **3, 5, and 7**

**Objective:** **To require coordination of timing and timing adjustments in activities within T&E occupied areas to avoid or minimize the potential for adverse effects to T&E species because of cumulative impacts from oil and gas activities, plus other activities within the area. This stipulation may limit the extent of field development.**

**Waiver:** **A waiver may be granted if new habitat studies in coordination with the Fish and Wildlife Service conclude that the area affected by this stipulation is not in T&E occupied area.**

**Exception:** **An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.**

**Modification:** **A modification of the stipulation may be granted if new habitat studies show that a portion of the area is not in occupied T&E areas.**

**Justification:** **Surface activities within these areas could adversely affect T&E species. Under Standard Lease Terms operations could be delayed up to 60 days. By attaching a Controlled Surface Use stipulation to the lease the lessee is made aware of the possibilities of longer delays to mitigate for cumulative effects from other activities. Timing Limitations, No Surface Occupancy, and No Lease option are deemed overly restrictive since impacts can be avoided by using a Controlled Surface Use stipulation.**

**STIPULATION # 4E**

**RESOURCE:** **Grizzly Bear Habitat**

**Map** **Threatened and Endangered Wildlife Species Areas  
(Situation 1 Habitat)**

**Stipulation:** **No Surface Occupancy**

**Alternative:** **7**

**Objective:** **To preclude surface disturbing activities in Situation 1 Grizzly Bear area.**

**Waiver:** **A waiver may be granted if the area is no longer classified as Situation 1 Grizzly Bear Habitat of considered critical to the recovery or preservation of the grizzly bear in a Conservation Plan.**

**Exception:** **An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.**

**Modification:** **A modification may be granted if the area is no longer classified as Situation 1 Grizzly Bear Habitat or considered critical to the recovery or preservation of the grizzly bear in a Conservation Plan.**

**Justification:** **A No Surface Occupancy stipulation is deemed necessary to ensure maintenance of the T&E habitat. If operations within these areas were to be under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms, the management of these areas for T&E species could be affected and/or**



cause fragmentation. The No Lease option is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation and not leasing could subject the Federal mineral estate to drainage from adjacent leased lands.

#### STIPULATION # 4F

**RESOURCE:** Grizzly Bear Denning Area

**Map:** Grizzly Bear Seasonal Range

**Stipulation:** Timing Limitation

**Alternatives:** 3, 5, and 7

**Objective:** To preclude surface disturbing activities, including interrupting drilling operations, within the Grizzly Bear denning areas which could cause increased stress and/or displacement of animals during the critical time period (October 15 to April 15).

**Waiver:** A waiver may be granted if new habitat studies in coordination with the Fish and Wildlife Service conclude that the area affected by this stipulation is not critical for Grizzly Bear denning.

**Exception:** An exception may be granted if it is determined that the animals have moved out of and are not using the general area during the particular year.

**Modification:** A modification of the stipulation may be granted if new habitat studies show that a portion of the area is not used by Grizzly Bears for denning.

**Justification:** Surface activities within these areas could adversely impact Grizzly Bears. If operations were allowed to occur under Standard Lease Terms or Controlled Surface Use, bears could be displaced. No Surface Occupancy and No Lease option were deemed overly restrictive since impacts can be avoided by using a Timing Limitation stipulation.

#### STIPULATION # 4G

**RESOURCE:** Grizzly Bear Spring Habitat

**Map:** Grizzly Bear Seasonal Range

**Stipulation:** Timing Limitation

**Alternative:** 3, 5, and 7

**Objective:** To preclude surface disturbing activities, including interrupting drilling operations, within the critical Spring Grizzly Bear habitat which could cause increased stress and/or displacement of animals during the critical time period (April 1 to June 30).

**Waiver:** A waiver may be granted if new habitat studies in coordination with the Fish and Wildlife Service conclude that the area affected by this stipulation is not critical for Grizzly Bear spring habitat.

**Exception:** An exception may be granted if seasonal conditions are such that the animals have moved out of and are not using the general area during the particular year.

**Modification:** A modification of the stipulation may be granted if new habitat studies show that a portion of the area is not used by Grizzly Bears.

**Justification:** Surface activities within these areas could adversely impact Grizzly Bears. If operations were allowed to occur under Standard Lease Terms or Controlled Surface Use bears could be displaced. No Surface Occupancy and No Lease option were

deemed overly restrictive since impacts can be avoided by using a Timing Limitation stipulation.

#### STIPULATION # 4H

<b>RESOURCE:</b>	<b>Grizzly Bear Summer Area</b>
<b>Map</b>	<b>Grizzly Bear Seasonal Range</b>
<b>Stipulation:</b>	<b>Timing Limitation</b>
<b>Alternatives:</b>	<b>3, 5, and 7</b>
<b>Objective:</b>	To preclude surface disturbing activities, including interrupting drilling operations, in critical Grizzly Bear summer areas which could cause increased stress and/or displacement of animals during the critical time period (July 1 to September 15).
<b>Waiver:</b>	A waiver may be granted if new habitat studies in coordination with the Fish and Wildlife Service conclude that the area affected by this stipulation is not critical Grizzly Bear summer range.
<b>Exception:</b>	An exception may be granted if seasonal conditions are such that the animals have moved out of and are not using the general area during the particular year.
<b>Modification:</b>	A modification of the stipulation may be granted if new habitat studies show that a portion of the area is not used by Grizzly Bears.
<b>Justification:</b>	Surface activities within these areas could adversely impact Grizzly Bears. If operations were allowed to occur under Standard Lease Terms or Controlled Surface Use bears could be displaced. No Surface Occupancy and No Lease option were deemed overly restrictive since impacts can be avoided by using a Timing Limitation stipulation.

#### STIPULATION # 4I

<b>RESOURCE:</b>	<b>Grizzly Bear Situation 1 Area</b>
<b>Map</b>	<b>Threatened and Endangered Wildlife Species Areas</b>
<b>Stipulation:</b>	<b>Timing Limitation</b>
<b>Alternative:</b>	<b>3 - Option 1</b>
<b>Objective:</b>	To preclude surface disturbing activities, including interrupting drilling operations, within the Situation 1 Grizzly Bear area which could cause increased stress and/or displacement of animals during the critical time period (April 15 to October 15).
<b>Waiver:</b>	A waiver may be granted if new habitat studies in coordination with the Fish and Wildlife Service conclude that the area affected by this stipulation is not critical for Grizzly Bear recovery.
<b>Exception:</b>	An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.
<b>Modification:</b>	A modification of the stipulation may be granted if new habitat studies show that a portion of the area is not used by Grizzly Bears.
<b>Justification:</b>	Surface activities within these areas could adversely impact Grizzly Bears. If operations were allowed to occur under Standard Lease Terms or Controlled Surface Use bears could be displaced. No Surface Occupancy and No Lease option were

deemed overly restrictive since impacts can be avoided by using a timing limitation stipulation.

#### STIPULATION # 4J

[CODE HF4J]

**RESOURCE:** Grizzly Bear Habitat

**Map:** Threatened and Endangered Wildlife Species Areas (portions of Situation 1 Habitat)

**Stipulation:** No Surface Occupancy

**Alternative:** 3 - Option 2

**Objective:** To preclude surface disturbing activities farther than one half mile from system roads in Situation 1 Grizzly Bear area.

**Waiver:** A waiver may be granted if new habitat studies in coordination with the Fish and Wildlife Service conclude that the area affected by this stipulation is no longer a Situation 1 Grizzly Bear area.

**Exception:** An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.

**Modification:** A modification of the stipulation may be granted if new habitat studies show that a portion of the area is no longer in the Situation 1 Grizzly Bear area.

**Justification:** A No Surface Occupancy stipulation is deemed necessary to ensure maintenance of the T&E habitat. If operations within these areas were to be under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms, the management of these areas for T&E species could be affected and/or cause fragmentation. The No Lease option is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation and not leasing could subject the Federal mineral estate to drainage from adjacent leased lands.

#### STIPULATION # 4K

[CODE HF4K]

**RESOURCE:** Grizzly Bear Denning and Summer Occupied Habitat

**Map:** Grizzly Bear Seasonal Range

**Stipulation:** No Surface Occupancy

**Alternative:** 7

**Objective:** To preclude new surface disturbing activities within the occupied overlapping denning and summer habitat of Grizzly Bear to protect habitat and to facilitate recovery.

**Waiver:** A waiver may be granted if new habitat studies in coordination with the Fish and Wildlife Service conclude that the area affected by this stipulation is no longer needed as denning or summer habitat.

**Exception:** An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.

**Modification:** A modification of the stipulation may be granted if new habitat studies show that a portion of the area is not important denning or summer habitat.

**Justification:** A No Surface Occupancy stipulation is deemed necessary to ensure maintenance of the Grizzly Bear habitat. If operations within these areas were to be under either a Controlled Surface Use, or under Standard Lease Terms, the management of these areas for Grizzly Bear could be affected and/or cause fragmentation. Timing Limitations do not provide an opportunity for drilling operations. The No Lease option is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation and not leasing could subject the Federal mineral estate to drainage from adjacent leased lands.

#### STIPULATION # 4L

**RESOURCE:** Wolf Winter Prey Habitat

**Map:** Wolf Prey Areas

**Alternatives:** 7

**Stipulation:** Timing Limitation

**Objective:** To preclude surface disturbing activities, including interrupting drilling operations, within the big game winter range which could cause displacement of prey animals for wolf during the critical time period (December 1 to May 15).

**Waiver:** A waiver may be granted if habitat studies conclude that the area affected by this stipulation is no longer used as a winter prey area.

**Exception:** An exception may be granted if seasonal conditions are such that the prey animals have moved out of and are not using the general area during the particular year.

**Modification:** A modification of the stipulation may be granted if habitat studies show that a portion of the area is not important winter prey area.

**Justification:** Standard Lease Terms provide for delay of activities for up to 60 days. Since the critical period extends for approximately 184 days, the Standard Lease Terms would not be adequate. The No Lease option or a No Surface Occupancy stipulation is deemed to be overly restrictive since operations conducted outside the wintering period would have a minimal effect on the wolf winter prey habitat.

[CODE HF4M]

#### STIPULATION # 4M

**RESOURCE:** Bald Eagle and Peregrine Falcon Habitat

**Map:** Threatened and Endangered Wildlife Species Areas

**Stipulation:** Timing Limitation

**Alternative:** 3, 5, and 7

**Objective:** To preclude surface disturbing activities, including interrupting drilling operations, within occupied areas (critical habitat) which could cause increased stress and/or displacement of animals during the critical time period (February 1 to July 31).

**Waiver:** A waiver may be granted if new habitat studies in coordination with the Fish and Wildlife Service conclude that the area affected by this stipulation is not critical for Eagles or Peregrine Falcon.

**Exception:** An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.

**Modification:** A modification of the stipulation may be granted if new habitat studies show that a portion of the area is not used by Eagles or Peregrine Falcon.

**Justification:**

Surface activities within these areas could adversely impact Bald Eagles or Peregrine Falcon. If operations were allowed to occur under Standard Lease Terms or Controlled Surface Use Eagles and Peregrine Falcons could be displaced. No Surface Occupancy and No Lease option were deemed overly restrictive since impacts can be avoided by using a Timing Limitation stipulation.

**STIPULATION # 4N****RESOURCE:**

**Bald Eagle and Peregrine Falcon Nests**

**Stipulation:**

**No Surface Occupancy**

**Alternatives:**

**3, 5 and 7**

**Objective:**

To preclude surface disturbing activities within the one mile of Bald Eagle or Peregrine Falcon nests to protect habitat and to facilitate recovery.

**Waiver:**

A waiver may be granted if new habitat studies in coordination with the Fish and Wildlife Service conclude that the area affected by this stipulation no longer contains an Eagle nest.

**Exception:**

An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.

**Modification:**

**Same as Waiver.**

**Justification:**

A No Surface Occupancy stipulation is deemed necessary to ensure continued use of the nest. If operations within these areas were to be under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms, the use of these areas by Eagles could be affected. The No Lease option is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation and not leasing could subject the Federal mineral estate to drainage from adjacent leased lands.

**STIPULATION # 4O****RESOURCE:**

**Sensitive Trout Species Streams**

**Map:**

**Sensitive Fish Drainages**

**Stipulation:**

**Controlled Surface Use**

**Alternative:**

**3, 4, 5, and 7**

**Objective:**

To require that activities within important bull trout and west slope cutthroat (sensitive trout species) streams may be relocated, require special design, and additional on and off-site mitigation measures to prevent sensitive trout populations from being decreased from oil and gas activities.

**Waiver:**

A waiver may be granted if the stream is no longer considered important to the viability of the species.

**Exception:**

An exception may be granted if the operator can demonstrate in a surface use plan of operations that adverse effects can be minimized and activities would not affect sensitive trout populations.

**Modification:**

A modification may be granted if an on site inspection and analysis demonstrates that sensitive trout would not be affected by operations in portions of the area.

**Justification:**

Surface disturbance within these areas could adversely affect sensitive trout viability, therefore, a Controlled Surface Use stipulation was deemed necessary. If opera-

tions within these areas were to be allowed to occur under Standard Lease Terms loss of sensitive trout could potentially occur. No Surface Occupancy was not considered appropriate for west slope cutthroat trout streams west of the continental divide. Populations are present in numerous streams and many are interconnected via tributaries--this provides opportunities for genetic transfer and reestablishing populations in suitable habitat. Other opportunities exist to mitigate effects for oil and gas operations through the use of a Controlled Surface Use stipulation.

#### STIPULATION # 4P

<b>RESOURCE:</b>	<b>Sensitive Trout Species Streams</b>
<b>Map:</b>	<b>Sensitive Fish Drainages</b> (Upper Missouri west slope cutthroat trout drainages and Copper Creek, Arrastra Creek and Poorman Creek)
<b>Stipulation:</b>	<b>No Surface Occupancy</b>
<b>Alternative:</b>	<b>7</b>
<b>Objective:</b>	To preclude construction of well sites and related facilities such as tank batteries in drainages important to the viability of Upper Missouri West Slope Cutthroat trout and Bull Trout.
<b>Waiver:</b>	A waiver may be granted if the stream is no longer considered important to the viability of the species.
<b>Exception:</b>	An exception may be granted if the operator can demonstrate in a surface use plan of operations that adverse effects can be minimized and activities would not affect sensitive trout populations.
<b>Modification:</b>	A modification may be granted if an on site inspection and analysis demonstrates that sensitive trout would not be affected by operations on a portion of the area.
<b>Justification:</b>	Surface disturbance within these focal areas could adversely affect sensitive trout viability, therefore, a No Surface Occupancy stipulation was deemed necessary. The Upper Missouri West Slope Cutthroat trout are small populations in isolated drainages. As a result, they are highly susceptible to even small amounts of short-term adverse change. Copper Creek, Poorman Creek, and Arrastra Creek are protected for bull trout spawning streams. The analysis is not able to show that occupancy in these drainages could take place without threatening sensitive fish. Without knowing the locations of potential operations and access needed, it is impossible to predict sedimentation from oil and gas activities in these drainages. An inventory of possible mitigation opportunities would also be needed to know that mitigation can offset effects. If operations within these areas were to be allowed to occur under Standard Lease Terms, Controlled Surface Use, or Timing Limitation, loss of sensitive trout could potentially occur.

[CODE HF4Q]

#### STIPULATION # 4Q

<b>RESOURCE:</b>	<b>Sensitive Plants</b>
<b>Stipulation:</b>	<b>Controlled Surface Use</b>
<b>Alternatives:</b>	<b>3, 4, and 6</b>
<b>Objective:</b>	To ensure that proposed activities do not adversely affect the viability of a plant species a survey would be required prior to surface disturbing activities to determine the possible presence of any sensitive plant species and operations be designed or located so as to not adversely affect the viability of the plant species.
<b>Waiver:</b>	A waiver may be granted if new habitat studies conclude this area is not habitat for any sensitive plant species.

**Exception:**

An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.

**Modification:**

A modification may be granted if new habitat studies conclude that a portion of this area is not habitat for any sensitive plant species.

**Justification:**

Since the specific location of sensitive plants is not known or can change over time, a Controlled Surface Use stipulation identifies the need to ensure that activities do not adversely affect the viability of these plant species should they be found during an on-the-ground survey at the time a well is proposed. The No Lease option or a No Surface Occupancy stipulation is deemed overly restrictive since the viability of a species must be protected rather than individual plants and they can often be avoided when locating facilities. Under Standard Lease Terms, moving a facility 200 meters may not be sufficient to ensure the viability of a particular species.

**ISSUE 5 - RECREATION****STIPULATION # 5A**

<b>RESOURCE:</b>	<b>Wild and Scenic River Candidates</b>
<b>Map:</b>	<b>Wild and Scenic River Candidates and other water courses</b>
<b>Stipulation:</b>	<b>No Surface Occupancy – 0.25 mile buffer</b>
<b>Alternatives:</b>	<b>3, 4, 5, and 7</b>
<b>Objective:</b>	<b>To protect wild and scenic river values along the river corridor and within 0.25 miles.</b>
<b>Waiver:</b>	<b>This stipulation may be waived if it is determined that the entire lease no longer involves a wild or scenic river candidate.</b>
<b>Exception:</b>	<b>An exception may be granted if the operator can demonstrate in a surface use plan of operations that the wild and scenic river values of the area can be maintained at a level acceptable to the authorized forest officer.</b>
<b>Modification:</b>	<b>This stipulation may be modified if it is determined that portions of the lease no longer involves a wild and scenic river candidate.</b>
<b>Justification:</b>	<b>The area is a candidate area for wild and scenic rivers. Therefore, a No Surface Occupancy stipulation is deemed necessary to protect the scenic and recreational features of the rivers. A Controlled Surface Use stipulation would not provide the same level of resource protection and would not fully alert potential lessees to the level of restriction within this area. Under Standard Lease Terms some impacts could be mitigated but operations could not be denied if all the wild and scenic values could not be protected. The No Lease option is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation and not leasing could subject the Federal mineral estate to drainage from adjacent leased lands.</b>

**STIPULATION # 5B**

<b>RESOURCE:</b>	<b>Silver King/Falls Cr and Elkhorn E2 Areas</b>
<b>Stipulation:</b>	<b>No Surface Occupancy</b>
<b>Alternatives:</b>	<b>3 and 4</b>
<b>Objective:</b>	<b>To maintain the roadless and wilderness values in the core of the Elkhorns (Management Area E2) and in the Helena National Forest portion of the Silver King/Falls Creek proposed wilderness.</b>
<b>Waiver:</b>	<b>A waiver may be granted if the area is no longer managed for roadless values.</b>
<b>Exception:</b>	<b>An exception may be granted if the operator can demonstrate in a surface use plan of operations that the wilderness and roadless values of the area can be maintained at a level acceptable to the authorized forest officer.</b>
<b>Modification:</b>	<b>This stipulation may be modified if it is determined that portions of the lease are no longer managed for roadless values.</b>
<b>Justification:</b>	<b>These areas have been recognized for their high value as roadless areas. Application of a No Surface Occupancy stipulation protects the surface resources and does not totally preclude development of potential oil and gas resources. If opera-</b>



tions within these areas were to be allowed under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms, the roadless character and recreational value of the area could be impacted. The No Lease option is not deemed necessary since the application of a No Surface Occupancy stipulation protects the resource concern and still provides some opportunity to explore for oil and gas using directional drilling technology.

#### STIPULATION # 5C

**RESOURCE:** Non-Motorized Recreation Management Areas (Roadless)

**Map:** Forest Plan Non-motorized Management Areas

**Stipulation:** No Surface Occupancy

**Alternative:** 3, 4, and 7

**Objective:** To maintain the roadless values in the Forest Plan R1 Management Areas.

**Waiver:** A waiver may be granted if the area is no longer managed for roadless values.

**Exception:** An exception may be granted if the operator can demonstrate in a surface use plan of operations that the roadless values of the area can be maintained at a level acceptable to the authorized forest officer.

**Modification:** This stipulation may be modified if it is determined that portions of the lease are no longer managed for roadless values.

**Justification:** These areas have been recognized for their high value as roadless areas. Application of a No Surface Occupancy stipulation protects the surface resources and does not totally preclude development of potential oil and gas resources. If operations within these areas were to be allowed under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms, the roadless character and recreational value of the area could be impacted. The No Lease option is not deemed necessary since the application of a No Surface Occupancy stipulation protects the resource concern and still provides some opportunity to explore for oil and gas using directional drilling technology.

#### STIPULATION # 5D

[CODE HF5D]

**RESOURCE:** Developed Recreation Sites

**Map:** Developed Recreation Sites

**Alternatives:** 3, 4, and 5

**Stipulation:** No Surface Occupancy

**Objective:** To preclude surface occupancy and surface disturbing activities within developed recreation sites and within 400 feet of the perimeter.

**Waiver:** A waiver may be granted if the site is moved or eliminated.

**Exception:** An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.

**Modification:** Same as waiver.

**Justification:** Construction of a developed campground or other site allocates those specific lands for a specific use and a No Surface Occupancy stipulation is deemed

necessary to protect the capital investment made. If operations were to be allowed within these areas under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms, the capital investment and/or recreational setting could be affected. The No Lease option is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation and not leasing could subject the Federal mineral estate to drainage from adjacent leased lands.

**STIPULATION # 5E**

**RESOURCE:** Developed Recreation Sites

**Map:** Developed Recreation Sites

**Stipulation:** Timing Limitation

**Alternatives:** 3, 4, and 5

**Objective:** To preclude surface occupancy and new surface disturbing activities from a distance of 400 feet from a developed site to 1/2 mile from the developed site from May 25 to September 15.

**Waiver:** A waiver may be granted if the site is moved or eliminated.

**Exception:** An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.

**Modification:** Same as waiver.

**Justification:** A Timing Limitation is considered necessary to protect the recreation experiences during the summer use season. Standard Terms and Controlled Surface Use would not eliminate the noise, lights and other disturbances to the recreationists at the site. A No Surface Occupancy stipulation or No Lease are overly restrictive since operations conducted outside the summer season would have minimal effects on Developed sites.

[CODE HF5F]

**STIPULATION # 5F**

**RESOURCE:** Developed Recreation Sites

**Map:** Developed Recreation Sites

**Alternatives:** 6 and 7

**Stipulation:** No Surface Occupancy

**Objective:** To preclude surface occupancy and surface disturbing activities within developed recreation sites and within 1/2 mile of the perimeter.

**Waiver:** A waiver may be granted if the site is moved or eliminated.

**Exception:** An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.

**Modification:** Same as waiver.

**Justification:** Construction of a developed campground or other site allocates those specific lands for a specific use and a No Surface Occupancy stipulation is deemed necessary to protect the capital investment made by the Forest Service and the experiences of recreational users. If operations were to be allowed within these

areas under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms, the capital investment and/or recreational setting could be affected. The No Lease option is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation and not leasing could subject the Federal mineral estate to drainage from adjacent leased lands.

#### STIPULATION # 5G

[CODE HF5G]

**RESOURCE:** Hunting Season Motorized Vehicle Closures

**Map:** Areas with Hunting Season Travel Restrictions

**Stipulation:** Timing Limitation

**Alternatives:** 3 and 4

**Objective:** To preclude new surface disturbing activities within Travel Plan hunting season closure areas from October 15 to December 1.

**Waiver:** A waiver may be granted if the travel restrictions change over the entire lease.

**Exception:** An exception may be granted if the operator demonstrates in a plan of operations that the impacts from the proposed action are acceptable or can be adequately mitigated.

**Modification:** A modification of the stipulation may be granted if travel restrictions change and a portion of the area is no longer in the restricted area.

**Justification:** Surface activities within these areas could adversely affect nonmotorized recreation hunting values. If operations were allowed to occur under Standard Lease Terms or Controlled Surface Use, the quality of nonmotorized hunting experiences could be adversely affected. No Surface Occupancy Stipulation or No Lease option would be overly restrictive since a Timing Limitation can mitigate the effects.

#### STIPULATION # 5H

**RESOURCE:** Scenery Resources

**Maps:** Visual Quality Objective  
Additional Visual Quality Areas (Alternative 4)

**Stipulation:** No Surface Occupancy

**Alternatives:** 3, 4, 5, 6, and 7

**Objective:** To protect the visual quality of the Retention Foreground viewing areas.

**Waiver:** A waiver may be granted if the area is not longer managed as retention foreground.

**Exception:** An exception may be granted if the operator can demonstrate in a surface use plan of operations that the visual quality of the area can be maintained at a level acceptable to the authorized forest officer.

**Modification:** A modification may be granted if a portion of the area is no longer managed as retention foreground.

**Justification:** The area has a low visual absorption capacity since vegetative or topographic screening would be very difficult. Therefore, a No Surface Occupancy stipulation is deemed necessary to notify potential lessees of the resource concern and restrictions. A Controlled Surface Use stipulation could provide the same level of resource protection but would not fully alert potential lessees to the level of restriction within this area. Under Standard Lease Terms some impacts could be mitigat-

ed but operations could not be denied if the visual quality objective could not be met. The No Lease option is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation and not leasing could subject the Federal mineral estate to drainage from adjacent leased lands.

**STIPULATION # 51**

[CODE HF51]      **RESOURCE:**                      **Scenery Resources**

**Maps:**                                      **Visual Quality Objective**  
    **Additional Visual Quality Areas (Alternative 4)**

**Stipulation:**                              **Controlled Surface Use**

**Alternatives:**                              **3, 4, 5, 6, and 7**

**Objective:**                                      **To ensure that the visual quality of the area is maintained proposed activities would be required to be located or designed to meet the visual quality objectives of retention mid ground, retention background, or partial retention within one year of completing operations.**

**Waiver:**                                      **A waiver may be granted if the area is not longer managed as retention mid/background or partial retention.**

**Exception:**                                      **An exception may be granted if for unforeseen circumstances, such as drilling problems, or other resource concerns, such as not being able to reclaim an area due to wet soil conditions, the visual quality objective can not be met within one year.**

**Modification:**                                      **A modification may be granted if a portion of the area is no longer managed as retention mid/background or partial retention.**

**Justification:**                                      **Application of the Controlled Surface Use stipulation identifies the standard that the operator must meet and provides the opportunity to still conduct activities as long as that standard is met. The No Lease option or a No Surface Occupancy stipulation is deemed overly restrictive in that the visual quality objective can often be met using vegetative or topographic screening and similar methods to mitigate the visual impacts. Under Standard Lease Terms some impacts could be mitigated but operations could not be denied if the visual quality objective could not be met.**

[CODE HF6]      NSO                      Visual Quality Foreground

**ISSUE 6 - SOIL AND WATER STIPULATIONS**

**STIPULATION # 6A**

[CODE HF6A]      **RESOURCE:**                      **Slopes greater than 60 percent and Sensitive Soils**

**Maps:**                                      **Slope Categories**  
    **Sensitive Soils**

**Alternatives:**                                      **1, 3, and 5**

**Stipulation:**                                      **No Surface Occupancy**

**Objective:**                                      **To preclude construction of well sites and related facilities such as roads, pipelines, or tank batteries on slopes over 60% which would involve relatively large cut and fill slopes and would be difficult to rehabilitate, and to preclude surface disturbing activities on areas that have a high erosion/stability hazard and would be difficult to reclaim.**

**Waiver:**                                      **A waiver may be granted if an on-the-ground review shows that the entire lease is on slopes less than 60% and sensitive soils do not exist on the lease.**

<b>Exception:</b>	An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.
<b>Modification:</b>	A modification may be granted if an on-the-ground review of a proposed well site or facility shows that an area of less than 60% slope exists where sensitive soils are not present.
<b>Justification:</b>	This stipulation is deemed necessary to protect the basic soil and water resources. Soil disturbance of an area required for a well pad on steep slopes or sensitive soils would be difficult to reclaim and could result in unacceptable soil loss through erosion and potentially increase the sediment load of streams. If operations within these areas were to be allowed under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms, erosion and reclamation of the area could be affected. The No Lease option is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation and not leasing could subject the Federal mineral estate to drainage from adjacent leased lands.

**STIPULATION # 6B**

[CODE HF6B]

<b>RESOURCE:</b>	<b>Slopes greater than 40 percent and Sensitive Soils</b>
<b>Maps:</b>	Slope Categories Sensitive Soils
<b>Alternative:</b>	4
<b>Stipulation:</b>	No Surface Occupancy
<b>Objective:</b>	To preclude construction of well sites and related facilities such as roads, pipelines, or tank batteries on slopes over 40% which would involve relatively large cut and fill slopes and would be difficult to rehabilitate, and to preclude surface disturbing activities on areas that have a high erosion/stability hazard and would be difficult to reclaim.
<b>Waiver:</b>	A waiver may be granted if an on-the-ground review shows that the entire lease is on slopes less than 40% and sensitive soils do not exist on the lease.
<b>Exception:</b>	An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.
<b>Modification:</b>	A modification may be granted if an on-the-ground review of a proposed well site or facility shows that an area of less than 40% slope exists where sensitive soils are not present.
<b>Justification:</b>	This stipulation is deemed necessary to protect the basic soil and water resources. Soil disturbance of an area required for a well pad on steep slopes or sensitive soils would be difficult to reclaim and could result in unacceptable soil loss through erosion and potentially increase the sediment load of streams. If operations within these areas were to be allowed under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms erosion and reclamation of the area could be affected. The No Lease option is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation and not leasing could subject the Federal mineral estate to drainage from adjacent leased lands.

**STIPULATION # 6C**

<b>[CODE HF6C]</b>	<b>RESOURCE:</b>	<b>Slopes greater than 40 percent and Sensitive Soils</b>
	<b>Maps:</b>	<b>Slope Categories Sensitive Soils</b>
	<b>Alternative:</b>	<b>7</b>
	<b>Stipulation:</b>	<b>No Surface Occupancy (drill pads only)</b>
	<b>Objective:</b>	<b>To preclude construction of well sites, but allow related facilities such as roads and pipelines on slopes between 40% and 60%. Well sites would involve relatively large cut and fill slopes and would be difficult to rehabilitate, and to preclude surface disturbing activities on areas that have a high erosion/stability hazard and would be difficult to reclaim.</b>
	<b>Waiver:</b>	<b>A waiver may be granted if an on-the-ground review shows that the entire lease is on slopes less than 40% and sensitive soils do not exist on the lease.</b>
	<b>Exception:</b>	<b>An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.</b>
	<b>Modification:</b>	<b>A modification may be granted if an on-the-ground review of a proposed well site or facility shows that an area of less than 40% slope exists where sensitive soils are not present.</b>
	<b>Justification:</b>	<b>This stipulation is deemed necessary to protect the basic soil and water resources. Soil disturbance of an area required for a well pad on steep slopes or sensitive soils would be difficult to reclaim and could result in unacceptable soil loss through erosion and potentially increase the sediment load of streams. If operations within these areas were to be allowed under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms erosion and reclamation of the area could be affected. The No Lease option is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation and not leasing could subject the Federal mineral estate to drainage from adjacent leased lands.</b>

**STIPULATION # 6D**

<b>[CODE HF6D]</b>	<b>RESOURCE:</b>	<b>30 - 60 percent slopes</b>
	<b>Map:</b>	<b>Slope Categories</b>
	<b>Alternatives:</b>	<b>3 and 5</b>
	<b>Stipulation:</b>	<b>Controlled Surface Use</b>
	<b>Objective:</b>	<b>To require that activities on 30 - 60% slopes be located and/or designed to avoid or minimize the potential for adverse effects to soil and water.</b>
	<b>Waiver:</b>	<b>A waiver may be granted if an on-the-ground review shows that the lease is on slopes less than 30%.</b>
	<b>Exception:</b>	<b>An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.</b>
	<b>Modification:</b>	<b>A modification may be granted if an on site inspection demonstrates slopes over 30% do not exist on the specific site.</b>

**Justification:** Surface disturbance within these areas could adversely affect soil and water, therefore, a Controlled Surface Use stipulation was deemed necessary. If operations within these areas were to be allowed to occur under Standard Lease Terms water quality of the area could be affected. The No Surface Occupancy stipulation and No Lease option were not considered appropriate since impacts can be mitigated using a Controlled Use stipulation and not leasing could subject the Federal mineral estate to drainage from adjacent leased lands.

#### STIPULATION # 6E

[CODE HF6E]

**RESOURCE:** 30 - 40% percent slopes

**Map:** Slope Categories

**Alternative:** 4, 6, and 7

**Stipulation:** Controlled Surface Use

**Objective:** To require that activities on 30 - 40% slopes be located and/or designed to avoid or minimize the potential for adverse effects to soil and water.

**Waiver:** A waiver may be granted if an on-the-ground review shows that the lease is on slopes less than 30%.

**Exception:** An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.

**Modification:** A modification may be granted if an on site inspection demonstrates slopes over 30% do not exist on the specific site.

**Justification:** Surface disturbance within these areas could adversely affect soil and water, therefore, a Controlled Surface Use stipulation was deemed necessary. If operations within these areas were to be allowed to occur under Standard Lease Terms water quality of the area could be affected. The No Surface Occupancy stipulation and No Lease option were not considered appropriate since impacts can be mitigated using a Controlled Surface Use stipulation and not leasing could subject the Federal mineral estate to drainage from adjacent leased lands.

#### STIPULATION # 6F

**RESOURCE:** Water Quality

**Map:** Wild and Scenic River Candidates and other water courses

**Alternatives:** 3, 4, 5, 6, and 7

**Stipulation:** No Surface Occupancy

**Objective:** To preclude surface disturbing activities on areas within 100 feet of water courses, water bodies, flood plains, and riparian areas to protect water quality.

**Waiver:** No portion of the lease is within 100 feet of water courses, water bodies, flood plains, or riparian areas.

**Exception:** An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.

**Modification:** A modification may be granted if an on site inspection demonstrates that surface water does not exist intermittently or perennially on the specific site.

**Justification:**

Surface disturbance within these areas would cause surface water degradation, therefore, a No Surface Occupancy stipulation was deemed necessary. Standard terms allow for the a drilling operation to be relocated 200 meters which exceeds the 100 foot buffer. The NSO stipulation is considered necessary to determine that there are areas adjacent to the stream zone suitable for occupancy. If operations within these areas were to be allowed to occur under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms, water quality of the area could be affected. The No Lease option is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation and not leasing could subject the Federal mineral estate to drainage from adjacent leased lands.

**STIPULATION # 6G****RESOURCE:****Water Quality****Map:**

Wild and Scenic River Candidates and other water courses

**Stipulation:**

Controlled Surface Use

**Alternative:**

3, 4, 5, 6, and 7

**Objective:**

To require that activities within 500 feet of water courses, water bodies, flood plains, and riparian areas be located and/or designed to avoid or minimize the potential for adverse effects to surface water.

**Waiver:**

No portion of the lease is within 500 feet of water courses, water bodies, flood plains, or riparian areas.

**Exception:**

An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.

**Modification:**

A modification may be granted if an on site inspection demonstrates that surface water does not exist intermittently or perennially on the specific site.

**Justification:**

Surface disturbance within these areas could adversely affect surface water quality, therefore, a Controlled Surface Use stipulation was deemed necessary. If operations within these areas were to be allowed to occur under Standard Lease Terms water quality of the area could be affected. The No Surface Occupancy and No Lease options were not considered appropriate since impacts can be mitigated using a Controlled Surface Use stipulation and not leasing could subject the Federal mineral estate to drainage from adjacent leased lands.

**STIPULATION # 6H****RESOURCE:****Riparian Areas****Map:**

Wild and Scenic River Candidates and other water courses

**Stipulation:**

No Surface Occupancy

**Alternatives:**

3, 4, 5, 6, and 7

**Objective:**

To preclude surface disturbing activities for the protect riparian areas.

**Waiver:**

A waiver may be granted if an on-the-ground inspection shows the lease does not contain riparian areas.

**Exception:**

An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.



**Modification:** A modification may be granted if an on-the-ground inspection shows that the area of the proposed activity is not a riparian area.

**Justification:** A No Surface Occupancy stipulation is deemed necessary for the protection of riparian areas. Protection of riparian areas is important to help maintain water quality and stream bank stability when adjacent to streams, and to provide wildlife habitat and shade for fisheries. Standard terms allow for the a drilling operation to be relocated 200 meters which exceeds the width of most riparian areas. The NSO stipulation is considered necessary to determine that there are areas adjacent to the riparian zone suitable for occupancy. If operations within these areas were to be allowed to occur under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms, the riparian ecosystem could be affected. The No Lease option is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation and not leasing could subject the Federal mineral estate to drainage from adjacent leased lands.

**STIPULATION # 6I**

[CODE HF6I]

**RESOURCE:** Wetland Areas

**Map:** Sensitive Soils

**Alternatives** 3, 4, 5, 6, and 7

**Stipulation:** No Surface Occupancy

**Objective:** To preclude surface disturbing activities and protect jurisdictional wetlands relative to Executive Order 11990.

**Waiver:** A waiver may be granted if an on-the-ground inspection shows that the lease does not contain wetlands.

**Exception:** An exception may be granted if the operator can demonstrate in a surface use plan of operations that adverse effects can be minimized, there are no practicable alternatives, and a 404 permit can be obtained.

**Modification:** The area affected by this stipulation may be modified if an-on-the ground survey concludes that wetlands do not cover the entire area.

**Justification:** A No Surface Occupancy stipulation provides assurance that the intent of Executive Order 11990 can be met. The NSO is necessary to determine that there are other areas suitable for occupancy on the lease. If operations within these areas were to be allowed to occur under either a Controlled Surface Use or Timing Limitation stipulation, or under Standard Lease Terms the wetlands could be impacted. The No Lease option is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation and not leasing could subject the Federal mineral estate to drainage from adjacent leased lands.

**STIPULATION # 6J**

**RESOURCE:** Soils on Slopes Greater than 40 percent in Municipal Watersheds

**Maps:** Slope Categories  
Municipal Watersheds

**Stipulation:** No Surface Occupancy

**Alternative:** 3

**Objective:** To preclude construction of well sites and related facilities such as tank batteries on slopes over 40% which would involve relatively large cut and fill slopes and would be difficult to rehabilitate and could adversely affect water supplies.

<b>Waiver:</b>	A waiver may be granted if on-the-ground studies show that slopes greater than 40% do not occur on the lease.
<b>Exception:</b>	An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.
<b>Modification:</b>	A modification may be granted if an on-the-ground review of a proposed well site or facility shows that an area of less than 40% slope exists or that engineering design of the site can mitigate water quality concerns.
<b>Justification:</b>	This stipulation is deemed necessary to protect the municipal water sources. Soil disturbance of an area required for a well pad on steep slopes may adversely affect water quality. If operations within these areas were to be allowed under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms water quality could be affected. The No Lease option is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation and not leasing could subject the Federal mineral estate to drainage from adjacent leased lands.

**STIPULATION # 6K**

<b>RESOURCE:</b>	<b>Municipal Watersheds</b>
<b>Map:</b>	<b>Municipal Watersheds</b>
<b>Stipulation:</b>	<b>No Surface Occupancy</b>
<b>Alternative:</b>	<b>4</b>
<b>Objective:</b>	To preclude construction of well sites and related facilities such as tank batteries in Municipal Watersheds.
<b>Waiver:</b>	A waiver may be granted if the watershed is no longer used for Municipal water supply.
<b>Exception:</b>	An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.
<b>Modification:</b>	<b>Same as Waiver</b>
<b>Justification:</b>	This stipulation is deemed necessary to protect the municipal water sources. Soil disturbance of an area required for a well pad may adversely affect water quality. If operations within these areas were to be allowed under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms water quality could be affected. The No Lease option is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation and not leasing could subject the Federal mineral estate to drainage from adjacent leased lands.

**STIPULATION # 6L**

<b>RESOURCE:</b>	<b>Municipal Water Permits</b>
<b>Map</b>	Map not provided, areas are less than 40 acres.
<b>Stipulation:</b>	<b>No Surface Occupancy</b>
<b>Alternatives:</b>	<b>3, 4, 5 and 7</b>
<b>Objective:</b>	To preclude construction of well sites and related facilities such as tank batteries within 400 feet of Municipal Water Special Use structures.
<b>Waiver:</b>	A waiver may be granted if the watershed is no longer used for Municipal water supply.
<b>Exception:</b>	An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.
<b>Modification:</b>	<b>Same as Waiver</b>
<b>Justification:</b>	This stipulation is deemed necessary to protect the municipal water collection facilities. If operations within these areas were to be allowed under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms, the facilities could be affected. The No Lease option is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation and not leasing could subject the Federal mineral estate to drainage from adjacent leased lands.

**STIPULATION # 6M**

<b>RESOURCE:</b>	<b>0 - 40 percent Slopes in Municipal Watersheds</b>
<b>Map</b>	Slope Categories Sensitive Soils Municipal Watershed
<b>Stipulation:</b>	<b>Controlled Surface Use</b>
<b>Alternative:</b>	<b>3 and 7</b>
<b>Objective:</b>	To require that activities on 0 to 40% slopes be located and/or designed to avoid or minimize the potential for adverse effects to soil and water quality.
<b>Waiver:</b>	A waiver may be granted if the watershed is no longer used for Municipal water supply.
<b>Exception:</b>	An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.
<b>Modification:</b>	<b>Same as Waiver.</b>
<b>Justification:</b>	This stipulation is deemed necessary to protect the municipal water sources. Soil disturbance of an area required for a well pad on steep slopes may adversely affect water quality. If operations within these areas were to be allowed under Standard Lease Terms water quality could be affected. The No Surface Use and No Lease options were not considered appropriate since impacts can be mitigated using a Controlled Surface Use stipulation and not leasing could subject the Federal mineral estate to drainage from adjacent leased lands.

**OTHER****STIPULATION # OTHER A**

<b>RESOURCE:</b>	<b>Administrative Sites</b>
<b>Stipulation:</b>	<b>No Surface Occupancy</b>
<b>Alternatives:</b>	<b>3, 4, 5 and 7</b>
<b>Objective:</b>	<b>To preclude surface occupancy and new surface-disturbing activities within administrative sites.</b>
<b>Waiver:</b>	<b>A waiver may be granted if it is determined that the entire leasehold no longer contains portions of administrative sites.</b>
<b>Exception:</b>	<b>An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.</b>
<b>Modification:</b>	<b>A modification may be granted if the administrative boundaries have changed.</b>
<b>Justification:</b>	<b>Designation of an administrative site allocates those specific lands for a specific use and a No Surface Occupancy stipulation is deemed necessary to protect the capital investments usually associated with these sites and their uses. If operations within these areas were to be allowed under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms the capital investment and/or the use of the area could be impacted. The No Lease option is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation and not leasing could subject the Federal mineral estate to drainage from adjacent leased lands.</b>

Additional stipulation maps provided by the office:

[CODE HF39]	Wolf Recovery Area
[CODE HF5HC]	Visual quality, mid & background retention - CSU
[CODE HF5A]	Visual quality partial - CSU
[CODE HF95]	Elkhorn mountain core - NLA
[CODE HF96]	Elkhorn mountain periphery - NLA

Kemmerer, WY BLM

- TLS (1) Feb 1 to Jul 31; (2) as mapped on the Kemmerer RMP stipulations overlay; (3) protecting sage grouse nesting habitat. [CODE K\_7]
- TLS (1) Nov 15 to Apr 30; (2) as mapped on the Kemmerer RMP stipulations overlay; (3) protecting big game crucial winter range. [CODE Wy\_1,Wy\_2, Wy\_3, Wy\_4, Wy\_5]
- TLS (1) May 1 to Jun 30; (2) as mapped on the Kemmerer RMP stipulations overlay; (3) protecting big game parturition areas.
- TLS (1) Feb 1 to Jul 31; (2) as mapped on the Kemmerer RMP stipulations overlay; (3) protecting raptor nesting habitat. [CODE K\_4]
- TLS (1) Nov 1 to Apr 1; (2) T. 18 N., R. 120 W., Sec. 18: lot 8,SESW,S2SE; (3) protecting bald eagle roosting areas.
- CSU (1) Surface occupancy or use will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped on the Kemmerer RMP Visual Resource Management overlay; (3) protecting Class I and II Visual Resource Management Areas.
- CSU (1) Surface occupancy or use within ¼ mile of a sage/sharp-tailed grouse strutting/dancing ground will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped on the Kemmerer RMP stipulations overlay; (3) protecting sage/sharp-tailed grouse breeding habitat.
- CSU (1) Surface occupancy or use within crucial big game winter range will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This plan may include development, operations, as well as the number, location, and maintenance of facilities; (2) as mapped on the Kemmerer RMP stipulations overlay; (3) limiting winter access, protecting habitat quality, and preventing the loss of crucial big game winter range. [CODE Wy\_1, Wy\_2, Wy\_3, Wy\_4, Wy\_5]
- CSU (1) Surface occupancy or use within 1/4 mile of the Hams Fork Cutoff of the Oregon Trail will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) as mapped on the Oregon/Mormon Pioneer National Historic Trails Management Plan; (3) protecting historic trails T,E,C or Other Species/Habitat: cushion plant communities.

**Timing Limitations Table**

Affected Areas	Restriction	Restricted Area
Big Game Crucial Winter Ranges	Nov 15 – April 30	Antelope, elk, moose, and mule deer crucial winter ranges
Parturition Areas	May 1 – June 30	Designated parturition areas
Sage Grouse Le	Feb 1 – May 15	Within ¼ radius of lek
Sage Grouse Nesting Area	Apr 1 – July 1	Up to 2 mile radius of lek
Golden Eagle Nest [CODE K_5]	Feb 1 – July 31	Within one-half mile radius
Osprey Nest	Feb 1 – July 31	Within one-half mile radius
Swainson's Hawk Nest	Feb 1 – July 31	Within one-half mile radius
Ferruginous Hawk Nest [CODE K_6]	Feb 1 – July 31	Within one mile radius
Coopers Hawk Nest	Feb 1 – July 31	Within one-half mile radius
Burrowing Owl Nest	Feb 1 – July 31	Within one-half mile radius
Merlin Nest [CODE K_1]	Feb 1 – July 31	Within one-half mile radius
Other raptors [CODE K_4]	Feb 1 – July 31	Within one-half mile radius
Game Fish Spawning Areas	Spring Spawning Fall Spawning	Determined on case by case basis.

**SEASONAL RESTRICTIONS FOR ALL SURFACE DISTURBANCE ACTIVITIES**

Additional stipulation maps provided by the office:

[CODE K\_3] Red Tailed Hawk Feb. 1 - July 31

[CODE K\_2] Sharp Shiner Hawk

Lander Wyoming BLM Office



07/08/02

**Standard Oil & Gas lease stipulations**

Stipulations:

Lease Notice No. 1

Lease Notice No. 2

Reference #

- [CODE Acec\_dd27] NSO (1) Legal descriptions or entire lease; (2) protecting listed cultural resource site, i.e. Green Mountain ACEC, Beaver Rim ACEC, Lander Slope ACEC, Red Canyon ACEC, Dubois Badlands ACEC, protecting Castle Gardens Rock Art and Picnic Site, etc.
- [CODE Antwinter, Elkwinter, Moosewin, Muledeerwin] TLS (1) Nov 15 to Apr 30; (2) Lease Notice No. 2 as mapped on the Lander RMP lease stipulation overlay; (3) protecting big game crucial winter range.
- [CODE Elkcalv] TLS (1) May 1 to Jun 30; (2) as mapped on the RMP lease stipulation overlay; (3) protecting big game parturition areas.
- [CODE Raptorbuff, Sagenesting] TLS (1) Feb 1 to Jul 31; (2) as mapped on the Lander RMP lease stipulation overlay; (3) protection Sage Grouse and Raptor nesting habitat.
- [CODE Senplant] CSU (1) The lease area may contain habitat for the threatened, endangered, candidate, or other special status plant and animal species listed below. Exploration and development proposals may be limited, or modifications required, or prohibited altogether, if activity is planned within the habitat boundaries of a threatened, endangered, candidate, or other special status plant/animal species as it then exists. Upon receipt of a site specific proposal, the authorized officer will review current inventory records of each location and may require that further localized surveys be performed to ensure no threatened, endangered, candidate, proposed, or other special status species or habitat are present.  
(ENDANGERED SPECIES ACT OF 1973 as AMENDED< SECTIONS 2 AND 7) ;  
(2) as mapped on the Lander RMP lease stipulation overlay; (3) protecting Charadrius montanus (mountain plover) ; Species affected by water depletions from the Platte River system, or other plant or species that may apply.

**According to Information Notice dated May 30, 2002 and WO IM 2002-174, this CSU stipulation has been changed to read: (1) The lease area may now or hereafter contain plants, animals, or their habitats determined to be threatened, endangered, or other special status species. BLM may recommend modifications to exploration and development proposals to further its conservation and management objective to avoid BLM-approved activity that will contribute to a need to list such a species or their habitat. BLM may require modifications to or disapprove proposed activity that is likely to result in jeopardy to the continued existence of a proposed or listed threatened or endangered species or result in any such species or critical habitat until it completes its obligations under applicable requirements of the Endangered Species Act as**

**amended, 16 U.S.C. 1531 et seq., including completion of any required procedure of conference or consultation; (2) as mapped on the Lander RMP lease stipulation overlay; (3) protecting “specific species i.e. Charadrius montanus (Mountain plover); Species affected by water depletions from the Platte River system, or other plant or species that may apply”.**

- [CODE Sagelekbuff] CSU (1) Surface occupancy or use within 1/4 of a Sage/Sharp-tailed Grouse strutting/dancing ground will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped on the Lander RMP lease stipulation overlay; (3) protecting Sage/Sharp-tailed Grouse breeding habitat.
- CSU (1) Surface occupancy or use will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped on the Lander RMP lease stipulation overlay; (3) protecting class I and II Visual Resource Management areas.
- CSU (1) Surface occupancy or use within blank of the blank will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped on the Lander RMP lease stipulation overlay (3) protecting blank.
- CSU (1) Surface occupancy or use within 1/4 Mile of the Rawlins-Fort Washakie Stage Trail, Bridget Creek Trail, or Casper-Lander Trail will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped on the Lander RMP lease stipulation overlay (3) protecting significant historic properties.
- CSU (1) Surface occupancy or use within Bison Basin Fossil Area will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped on the Lander RMP lease stipulation overlay; (3) protecting paleontological values.
- [CODE Archsitesall] CSU (1) Surface occupancy or use may be restricted or prohibited if paleontological sites exist unless paleontological sites are avoided or the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped on the Lander RMP lease stipulation overlay; (3) protecting No name paleontological values.
- [CODE Ortrbuff, Rawftwaskbuff] CSU (1) Surface occupancy or use within 1/4 mile or visual horizon of trail whichever is closer may be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped on the Lander RMP lease stipulation overlay; (3) protecting cultural and scenic values of the Oregon/Mormon/Pony Express Trail.

The standard stip for protection of these trails is 1/4 mile or visual horizon. Previously Lander used a NSO which was according to the RMP. Last time the stipulation was added for protection of the trail was in 1995 and that parcel was not ever leased.

#### THIS STIPULATION APPLIES TO ALL PARCELS

[CODE Mt plover,  
Platte]

The U.S. Fish and Wildlife Service (FWS) has proposed for listing under the Endangered species Act (ESA) of 1973, the mountain plover (*Charadrius montanus*) as a threatened species. A listing package has been sent to the Director of FWS in Washington, D.C. for review/approval. The listing is very likely in the near future. Mountain plovers migrate to Wyoming to nest each year and are confirmed to nest in every county. Even though they arrive in early April and complete their nesting by the middle of July, alteration of habitat throughout the rest of the year can have a detrimental effect on these birds as they generally return to the same location to nest each year. The exploration and development of oil and gas leases may have a detrimental effect on mountain plovers and their habitat. Some of the land encompassed in the leases parcels described in the August 6, 2002, Notice of Competitive Oil and Gas Lease Sale contain habitat for the mountain plover and have been designated as such. Most of the parcels have not been specifically inventoried for the presence or absence of mountain plovers, so reliable information is not available at this time. This information notice is to alert potential purchasers that **all** of the parcels in this sale are subject to the ESA and may contain habitat for mountain plovers, (even if not specifically denoted herein). Inventories will be required when potential mountain plover habitat exists within a lease parcel. If the birds are then found to be present, then additional protective measures most likely will be added to allow for any disturbing activities. If a lease parcel contains no mountain plovers habitat or if the birds are not present, then the lease parcel may be developed without restrictions for mountain plovers. If at a later date mountain plovers occupy previously unoccupied habitat within a lease parcel, then additional protective measures will most likely be added. Please see section 6 of the Lease Terms for additional information regarding threatened or endangered species.

**NO SURFACE OCCUPANCY STIPULATION - NSO**

No surface occupancy or use is allowed on the lands described below (legal subdivision or other description).

NOS (1)

For the purpose of:

NSO (2)

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1`624 and 3101 or FS Manual 1950 and 2820.)

**TIMING LIMITATION STIPULATION - TLS**

No surface use is allowed during the following time period(s). This stipulation does not apply to operation and maintenance of production facilities.

TLS (1)

On the lands described below:

TLS (2)

For the purpose of (reasons):

TLS (3)

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

**CONTROLLED SURFACE USE STIPULATION - CSU**

Surface occupancy or use is subject to the following special operating constraints.

CSU (1)

On the lands described below:

CSU (2)

For the purpose of:

CSU (3)

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

## **APPENDIX 2**

**STANDARD PROTECTION REQUIREMENTS  
FOR SURFACE DISTURBING ACTIVITIES (ALSO  
STANDARD OIL AND GAS LEASE STIPULATIONS)**

The following stipulations would be used, when designated operator and the surface appropriate:

**SURFACE DISTURBANCE  
STIPULATION**

Surface disturbance will be prohibited in any of the following areas or conditions, except when the District Manager authorizes development in the area following consideration of a detailed plan.

[CODE L14]

1. Slopes in excess of 25 percent.
2. Within important scenic areas (Class I and II Visual Resource Management areas).
3. Within 500 feet of surface water and/or riparian areas.
4. Within a quarter mile or visual horizon (whichever is closer) from a historic trail.
5. Construction during periods when the soil material is saturated, frozen, or when watershed damage is likely to occur.

**GUIDANCE**

The SURFACE DISTURBANCE STIPULATION will be included on all lease parcels. The intent of this stipulation is to inform interested parties (potential lessees) that, when one or more of the five (a through e) environmental conditions exists, surface

disturbing activities will be prohibited unless or until the lessee or his designated operator and the surface management agency (SMA) arrive at an acceptable plan for mitigation of anticipated impacts.

This negotiation will occur prior to development of the lease and become a condition for approval in the Application for Permit to Drill (APD).

Specific threshold criteria (e.g., 500 feet from water) have been established based upon the best information available. However, geographical areas and time periods of concern must be delineated at the field level (i.e., "surface water and/or riparian areas" may include both intermittent and ephemeral water sources or may be limited to perennial surface water).

**WILDLIFE STIPULATION**

1. To protect important big game ungulate winter habitat, drilling and other surface disturbing activity will not be allowed during the period from November 15 to April 30 within certain areas encompassed by this lease. The same criteria applies to elk calving areas from the period of May 1 to June 30. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically authorized in writing by the District Manager.

2. To protect important raptor and/or sage and sharp-tailed grouse nesting habitat, drilling and other surface disturbing activity will not be allowed during the period from February 1 to July 31 within certain areas encompassed by this lease. This limitation does not apply to this lease. This limitation does not apply to maintenance and operation of producing wells. Exception to this limitation in any year may be specifically authorized in writing by the District Manager.

3. No-surface-occupancy will be allowed on that portion of the lease within the area (legal description) for the purpose of protecting (e.g., sage/sharp-tailed grouse strutting, elk calving, and/or other species activity) habitat. Exceptions to this limitation in any year may be authorized in writing by the District Manager.

## **GUIDANCE**

The WILDLIFE STIPULATION is intended to provide two basic types of protection, seasonal restriction (a and b) and no-surface-occupancy (c). Legal descriptions will ultimately be required and should be measurable and legally definable. There are no minimum subdivision requirements at this time. The area delineated can and should be refined as necessary based upon current biological data at the time the APD is processed. It should eventually become a condition for approval in the Application for Permit to Drill.

The seasonal restriction section of the stipulation identifies three groups of species and delineates two similar timeframe restrictions. These two

restrictions are big game ungulate and raptor/grouse. The big game ungulates including elk, moose, deer, antelope, and big horn sheep all require protection of crucial winter range between November 15 and April 30. Raptors including eagles, accipiters, falcons, buteos, osprey, and burrowing owls for the period between February 1 and July 31.

The no-surface-occupancy section of the stipulation is intended for protection of unique wildlife and habitat values (e.g., sage grouse strutting grounds, elk calving areas, known threatened and endangered species habitat, etc.) Which cannot be protected using seasonal restrictions.

## **SPECIAL RESOURCE PROTECTION STIPULATION**

In order to protect (resource value), the District Manager reserves the right to prohibit surface disturbance (i.e., within a specific distance of the resource value or between date-to-date in (legal subdivision). This limitation does not apply to operation and maintenance of producing well. Exceptions to this limitation may be authorized by the District Manager.

Examples:

1. Recreation areas.
2. Special historic features.
3. Special management areas.
4. Sections of major rivers.
5. Prior existing rights-of-way.



6. Occupied dwellings.

**GUIDANCE**

The SPECIAL RESOURCE PROTECTION STIPULATION is intended for use only in the few very specialized, site-specific situations where one of the other three general stipulations will not adequately address the concern. The resource value, location, and specific restrictions must be clearly identified. A detailed plan addressing mitigation and special restrictions on development will be required prior to the development of a lease and become a condition for approval in the Application for Permit to Drill.

[CODE Resitebuf]

**NO SURFACE OCCUPANCY STIPULATION**

No-surface-occupancy will be allowed on the following described lands (legal subdivision/area) because of (resource value). See example.

Examples:

- 1. Recreation areas (campgrounds, historic trails, national monuments).
- 2. Major reservoirs/dams.
- 3. Special management area (ACEC, wild and scenic rivers, etc).

**GUIDANCE**

The NO-SURFACE-OCCUPANCY STIPULATION (NSO) is intended for use only when other stipulations are determined insufficient to adequately protect the public interest

and/or as an alternative to “no leasing.” The legal subdivision and resource value of concern must be identified in the stipulation and be tied to a land use planning document. There will be no exceptions to this stipulation granted without modification in the appropriate land use plan or unless an exception is approved by W.S.O.

Washington Office guidance advises that when considering the no-lease option, a rigorous test must be met and fully documented in the record. This test must be based on the stringent standards of the interior Board of Land Appeals. Since rejection of a lease offer is more severe than the most restrictive stipulation, the record must show that consideration was given to leasing subject to reasonable stipulations, including a NSO stipulation. The record must also show that stipulations were determined to be insufficient to adequately protect the public interest. A no-lease decision should not be made solely because it appears that directional drilling would be unfeasible, especially where a NSO lease may be acceptable to a potential lessee. In such cases the opportunity to accept or refuse a NSO lease should be left to the potential lessee. Exception(s) by the District Manager to the NSO stipulation will be subject to the same test used to initially justify the imposition of this stipulation. If the NSO stipulation is justified, but upon development less restrictive stipulations would adequately protect the public interest, then an exception to the NSO stipulation could be granted. The record must show that because conditions and uses have changed, less restrictive stipulations will protect the public interest.

Lander Wyoming BLM Office

Oil and Gas Leasing Stipulations

WSA-NAS

# Lewis & Clark National Forest

**ROADLESS STIPULATION # 1**

**RESOURCE:** Inventoried Roadless Areas

**Stipulation:** No Surface Occupancy

**Alternatives:** 4(b)

**Objective:** To maintain roadless character of the area.

**Waiver:** A waiver may be granted if the area is removed from the roadless inventory.

**Exception:** Exceptions to this stipulation are not foreseen.

**Modification:** This stipulation may be modified if portions of the lease are removed from the roadless inventory.

**ROADLESS STIPULATION # 2**

**RESOURCE:** Management Area F Areas - Semi-Primitive Recreation Areas

**Stipulation:** Controlled Surface Use

**Alternatives:** 2 and 4

**Objective:** To maintain semi-primitive values of the area through use of extensive reclamation requirements, which could include reclaiming the disturbed area to as near-natural conditions as technologically feasible. The stipulation will also require activities to be located and operations conducted in a manner that will minimize the effects on the semi-primitive characteristics of the area.

**Waiver:** A waiver may be granted if the area is no longer managed for Management Area F values.

**Exception:** An exception may be granted if the operator can demonstrate in a plan of operations that the proposed action can be carried out to meet goals and objectives for semi-primitive management.

**Modification:** This stipulation may be modified if portions of the lease are no longer managed for semi-primitive values.

**ROADLESS STIPULATION # 3**

[CODE LC1] **RESOURCE:** Management Area F Areas - Semi-Primitive Recreation.

**Stipulation:** No Surface Occupancy

**Alternatives:** 6, 7

**Objective:** To maintain semi-primitive values of the area.

**Waiver:** A waiver may be granted if the area is no longer managed for Management Area F values.

**Exception:** Exceptions to this stipulation are not foreseen.

**Modification:** This stipulation may be modified if portions of the lease are no longer managed for Management Area F values.

**ROADLESS STIPULATION # 4**

<b>RESOURCE:</b>	<b>Management Area G - Undeveloped Lands</b>
Stipulation:	Controlled Surface Use
Alternatives:	2
Objective:	To maintain and protect Forest resources with minimal investments.
Waiver:	A waiver may be granted if the area is no longer managed for Management Area G values.
Exception:	An exception may be granted if the operator can demonstrate in a plan of operations that surface resources can be maintained during occupancy and the surface quality can be fully reclaimed after proposed activities.
Modification:	This stipulation may be modified if portions of the lease are no longer managed for Management Area G values.

**ROADLESS STIPULATION # 5**

<b>RESOURCE:</b>	<b>Management Area G - Undeveloped Lands</b>
Stipulation:	No Surface Use (outside of 1-mile corridor along existing roads)
Alternatives:	6, 7
Objective:	To maintain and protect Forest resources by restricting surface occupancy for oil and gas development to be consistent with surface uses for other resource values.
Waiver:	A waiver may be granted if the area is no longer managed for Management Area G values.
Exception:	An exception may be granted if the operator can demonstrate in a plan of operations that surface resources can be maintained during occupancy and the surface quality can be fully reclaimed after proposed activities.
Modification:	This stipulation may be modified if portions of the lease are no longer managed for Management Area G values.

**ROADLESS STIPULATION # 6**

<b>RESOURCE:</b>	<b>Management Area N - Further Planning Areas</b>
Stipulation:	Controlled Surface Use
Alternatives:	2
Objective:	Future planning may identify all or part of the Deep Creek Reservoir North Further Planning Area as suitable for wilderness, and the lands so identified may ultimately be designated as wilderness. Information made available to the Forest Service regarding discoveries of mineral deposits on these lands will be considered in the planning process and may be key factors in land allocation determinations.

Any terms of this lease to the contrary notwithstanding, the following terms shall apply to the above described lands:

- (1) Only exploratory activities for the purpose of discovering and disclosing the extent of mineral deposits is allowed, until development and production operations are specifically concurred in by the Forest Service based on a land management plan and/or specific environmental analysis of an operating plan.

(2) Production of mineral resources *may* not be allowed if, upon evaluation of extent and nature of mineral deposits, it is determined that preservation of other resource values would be precluded by production activities and an allocation determination is made to recommend the lands for wilderness inclusion.

(3) Any lands covered by this lease which Congress designates as wilderness shall become subject to the provisions of the applicable wilderness legislation, and the Secretary of Agriculture's regulations and Forest Service policies pertaining thereto.

(4) The lessee shall be responsible, as he deems necessary to protect his interest, for initiating requests to the Bureau of Land Management for suspension of lease terms, rental, or minimum royalties. The Forest Service does not intend that the inclusion of this stipulation be construed as a basis to deny a request for suspension.

(5) Until these lands are allocated to nonwilderness purposes by a land management plan or specific environmental analysis and decision, mineral-related operations are subject to the following terms:

(a) Construction of access ways and operation sites will not be permitted in areas of extremely high environmental sensitivity where such construction would cause serious and irreparable environmental damage.

(b) Accessway construction will be permitted only where existing accessways are inadequate or other methods of access are impractical.

(c) Accessways will be built to a standard no higher than required for passage of equipment and support personnel, and to protect surface resources.

(d) The accessways and other areas of operation will be reclaimed, as soon as they have served their purpose, to a condition as near as practical to the surface condition existing prior to the authorized use of the lands.

**Waiver:** A waiver may be granted if the area is determined as not suitable for wilderness.

**Exception:** An exception to this stipulation is not foreseen.

**Modification:** This stipulation may be modified if portions of the lease are no longer managed for Management Area N values.

#### ROADLESS STIPULATION # 7

**RESOURCE:** Management Area N - Further Planning Areas

**Stipulation:** No Surface Occupancy

**Alternatives:** 4(b)

**Objective:** The Deep Creek Reservoir North Further Planning Area has been recognized for its wilderness qualities. Precluding the construction of roads and drill pads in this area will maintain those qualities until a final wilderness determination is made.

**Waiver:** A waiver may be granted if the area is determined as not suitable for wilderness.

**Exception:** An exception to this stipulation is not foreseen.

**Modification:** This stipulation may be modified if it is determined that portions of the lease are no longer managed for Management Area N values.

**ROADLESS STIPULATION # 8**

**RESOURCE:** Buffer Zone on eastern edge of Rocky Mountain Division

**Stipulation:** No Surface Occupancy

**Alternatives:** 6 (2-mile zone), and 7 (1-mile zone)

**Objective:** Leasing with No Surface Occupancy on the eastern perimeter of the Rocky Mountain Division would provide for oil and gas resources to be extracted from surface locations outside of the Lewis and Clark National Forest while maintaining surface resource values within the Forest.

**Waiver:** A waiver, exception or modification to this stipulation is not foreseen.

**Exception:** See above.

**Modification:** See above.

**WILDLIFE STIPULATION # 1**

**RESOURCE:** Grizzly Bear Management Situation 1 (MS 1) Habitat

**Alternatives:** 2, 3, 5, 6, 7

**Stipulation:** Controlled Surface Use

**Objective:** To limit activity levels in time and space within occupied threatened grizzly bear habitat to mitigate impacts to resource values sensitive to high levels of activity. This could include delay of operations greater than 60 days, or limits to total amount of development at any one time to comply with the Northern Continental Divide Ecosystem Access Taskforce Guidelines and/or avoid cumulative impacts from other activities.

**Waiver:** A waiver, exception or modification to this stipulation is not foreseen.

**Exception:** See above.

**Modification:** See above.

**WILDLIFE STIPULATION # 2**

**RESOURCE:** Grizzly Bear Management Situation 1 Habitat

**Alternatives:** 4(b), 6, 7

**Stipulation:** No Surface Occupancy

**Objective:** To preclude surface disturbing activities in occupied threatened grizzly bear habitat to protect the habitat and facilitate recovery of the species.

**Waiver:** This stipulation will not be waived, excepted or modified while the area is important to grizzly bear recovery or to its conservation following a change in legal status under the Endangered Species Act. Conditions for waivers and modifications require that the area is no longer classified as Management Situation 1 habitat pursuant to the Interagency Grizzly Bear Management Guidelines (Federal Register, Vol. 51, No. 228, November 26, 1986) and not considered important to its conservation, as outlined in an approved grizzly bear conservation strategy, following a change in its legal status under the Endangered Species Act.

**Exception:** See above.

**Modification:** See above.

**WILDLIFE STIPULATION # 3**

[CODE LC5]	<b>RESOURCE:</b>	Grizzly Bear Denning Habitat
	<b>Stipulation:</b>	Timing Limitation
	<b>Alternatives:</b>	2, 3, 5, 7
	<b>Objective:</b>	To limit or preclude oil and gas activities from taking place in important habitat components during critical use periods. Construction and drilling activities will not be allowed in grizzly bear denning habitat from 10/15 through 4/15.
	<b>Waiver:</b>	A waiver may be granted if, in coordination with the U.S. Fish and Wildlife Service, the area is no longer considered important denning habitat.
	<b>Exception:</b>	An exception may be granted if an analysis conducted at the time a drilling proposal is received shows that the proposed action will not adversely effect grizzly bear denning habitat or the bear's use of that habitat.
	<b>Modification:</b>	A modification may be granted if a portion of the lease is no longer considered important grizzly bear denning habitat.

**WILDLIFE STIPULATION # 4**

[CODE LC6]	<b>RESOURCE:</b>	Grizzly Bear Spring Range
	<b>Stipulation:</b>	Timing Limitation
	<b>Alternatives:</b>	2, 3, 5, 7
	<b>Objective:</b>	To limit or preclude oil and gas activities from taking place in important habitat components during critical use periods. Construction and drilling activities will not be allowed in grizzly bear spring range from 4/1 through 6/30.
	<b>Waiver:</b>	A waiver may be granted if, in coordination with the U.S. Fish and Wildlife Service, the area is no longer considered important spring range.
	<b>Exception:</b>	An exception may be granted if an analysis conducted at the time a drilling proposal is received shows that the proposed action will not adversely effect grizzly bear spring habitat or the bear's use of that habitat.
	<b>Modification:</b>	A modification may be granted if a portion of the lease is no longer considered important grizzly bear spring range.

**WILDLIFE STIPULATION # 5**

	<b>RESOURCE:</b>	<b>Bald and Golden Eagle, Prairie Falcon, Goshawk Nests</b>
	<b>Stipulation:</b>	No Surface Occupancy
	<b>Alternatives:</b>	6, (Alternative 7 - Bald Eagle only)
	<b>Objective:</b>	To preclude surface disturbing activities within ½ mile of nest sites to protect habitat and to facilitate recovery of endangered species (bald eagles).
	<b>Waiver:</b>	A waiver may be granted if new habitat studies (in coordination with the U.S. Fish and Wildlife Service in the case of bald eagles) conclude the area affected by this stipulation no longer contains a nestsite.



**Exception:** An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.

**Modification:** A modification may be granted if new habitat studies show that a portion of the area is not used by eagles, prairie falcon, or goshawk.

#### **WILDLIFE STIPULATION # 6**

**RESOURCE:** **Peregrine Falcon Nests**

**Stipulation:** No Surface Occupancy

**Alternatives:** 6

**Objective:** To preclude surface disturbing activities within 1 mile of nest sites to protect habitat and to facilitate recovery of endangered species.

**Waiver:** A waiver may be granted if new habitat studies, in coordination with the United States Fish and Wildlife Service, conclude the area affected by this stipulation no longer contains a nestsite.

**Exception:** An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.

**Modification:** A modification may be granted if new habitat studies show that a portion of the area is not used by peregrine falcon.

#### **\* WILDLIFE STIPULATION # 7**

**RESOURCE:** **Bald and Golden Eagle, Prairie and Peregrine Falcon, and Goshawk Nest Areas**

**Stipulation:** Timing Limitation

**Alternative:** 2, 3, 4, 5, 7

**Objective:** To preclude surface disturbing activities in critical habitat (nesting areas) which may cause increased stress and/or displacement of raptors during the critical time periods as follows (indicate applicable species):

Bald Eagle - February 15 through August 15  
 Golden Eagle - February 1 to August 1  
 Prairie Falcon - March 15 to August 1  
 Peregrine Falcon - April 15 to August 1  
 Goshawk - April 15 through August 15

**Waiver:** A waiver may be granted if new habitat studies (in coordination with the United States Fish and Wildlife Service, in the case of bald eagles and peregrine falcons) conclude the area affected by this stipulation is not critical for raptor use during nesting season.

**Exception:** An exception may be granted if the operator demonstrates in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.

**Modification:** A modification of the stipulation may be granted if new habitat studies show that a portion of the area is not used by raptors.

**WILDLIFE STIPULATION # 8**

<b>[CODE LC8] RESOURCE:</b>	Elk Winter Range
Alternatives:	2, 3, 4, 5, 6, 7
Stipulation:	Timing Limitation
Objective:	To limit or preclude oil and gas activities from taking place in important habitat components during critical use periods. Construction and drilling activities will not be allowed in elk winter range habitat from 12/1 through 5/15.
Waiver:	A waiver may be granted if habitat studies in coordination with the Montana Department of Fish, Wildlife and Parks conclude that the area is no longer used as elk winter range.
Exception:	An exception may be granted if an analysis conducted at the time a drilling proposal is received shows that the proposed action will not have adverse impacts to elk winter range or the use that habitat.
Modification:	A modification may be granted if a portion of the lease is no longer considered important elk winter range.

**WILDLIFE STIPULATION # 9**

<b>RESOURCE:</b>	Elk and Deer Winter Range (Jefferson Division)
Alternatives:	7
Stipulation:	Controlled Surface Use
Objective:	To limit activity levels in time and space within occupied elk winter range to mitigate impacts to resource values sensitive to high levels of activity. This could include delay of operations greater than 60 days, or limits to total amount of development at any one time to avoid cumulative impacts from other activities.
Waiver:	A waiver may be granted if habitat studies in coordination with the Montana Department of Fish, Wildlife and Parks conclude that the area is no longer used as elk winter range.
Exception:	An exception may be granted if an analysis conducted at the time a drilling proposal is received shows that the proposed action will not have adverse impacts to elk winter range or the use that habitat.
Modification:	A modification may be granted if a portion of the lease is no longer considered important elk winter range.

**WILDLIFE STIPULATION # 10**

<b>RESOURCE:</b>	Yearlong Mountain Goat Habitat
Alternatives:	2
Stipulation:	No Surface Occupancy
Objective:	To preclude occupancy in occupied mountain goat habitat.
Waiver:	A waiver may be granted if habitat studies in coordination with the Montana Department of Fish, Wildlife and Parks conclude that the area is no longer used as yearlong mountain goat habitat.

**Exception:** An exception may be granted if an analysis conducted at the time a drilling proposal is received shows that the proposed action will not have adverse impacts to yearlong goat habitat or the use that habitat.

**Modification:** A modification may be granted if a portion of the area identified on the lease is no longer considered important yearlong goat habitat.

**WILDLIFE STIPULATION # 11**

[CODE LC10] **RESOURCE:** Mountain Goat Kidding/Nursery Areas

**Alternatives:** 3, 7

**Stipulation:** Timing Limitation

**Objective:** To limit or preclude oil and gas activities from taking place in important habitat components during critical use periods. Construction and drilling activities will not be allowed in mountain goat kidding/nursery areas from 5/1 through 7/15.

**Waiver:** A waiver may be granted if habitat studies in coordination with the Montana Department of Fish, Wildlife and Parks conclude that the area is no longer used as a mountain goat kidding or nursery area.

**Exception:** An exception may be granted if an analysis conducted at the time a drilling proposal is received shows that the proposed action will not have adverse impacts to goat kidding/nursing habitat or the use that habitat.

**Modification:** A modification may be granted if a portion of the lease is no longer considered an important goat kidding/nursery area.

**WILDLIFE STIPULATION # 12**

[CODE LC11] **RESOURCE:** Mountain Goat Licks

**Alternatives:** 2, 3, 7

**Stipulation:** No Surface Occupancy

**Objective:** To preclude occupancy within a one-mile radius of mineral licks used by mountain goats.

**Waiver:** A waiver may be granted if habitat studies in coordination with the Montana Department of Fish, Wildlife and Parks conclude that the area is no longer contains mineral licks used by mountain goats.

**Exception:** An exception may be granted if an analysis conducted at the time a drilling proposal is received shows that the proposed action will not have adverse impacts to mineral licks or the use by mountain goats of that habitat.

**Modification:** Same as a waiver.

**WILDLIFE STIPULATION # 13**

**RESOURCE:** Bighorn Sheep Winter Range and Lambing Areas

**Alternatives:** 2

**Stipulation:** No Surface Occupancy

**Objective:** To preclude surface occupancy in habitat components considered critical to the bighorn sheep.

**Waiver:** A waiver may be granted if habitat studies in coordination with the Montana Department of Fish, Wildlife and Parks conclude that the area is no longer considered important bighorn sheep winter range or lambing area (indicate which type of habitat).

**Exception:** An exception may be granted if an analysis conducted at the time a drilling proposal is received shows that the proposed action will not have adverse impacts to bighorn sheep winter range/lambing areas or their use that habitat.

**Modification:** A modification may be granted if a portion of the area is no longer considered important bighorn sheep winter range or lambing area.

**WILDLIFE STIPULATION # 14**

[CODE LC12] **RESOURCE:** Bighorn Sheep Winter Range and Lambing Areas

**Alternatives:** 5, 7

**Stipulation:** Timing Limitation

**Objective:** To limit or preclude oil and gas activities from taking place in important habitat components during critical use periods. Construction and drilling activities will not be allowed in bighorn sheep winter range from 9/1 through 5/15, nor in bighorn sheep lambing areas from 4/15 through 6/30.

**Waiver:** A waiver may be granted if habitat studies in coordination with the Montana Department of Fish, Wildlife and Parks conclude that the area is no longer considered important bighorn sheep winter range or lambing area (indicate which type of habitat).

**Exception:** An exception may be granted if an analysis conducted at the time a drilling proposal is received shows that the proposed action will not have adverse impacts to bighorn sheep winter range/lambing areas or their use that habitat.

**Modification:** A modification may be granted if a portion of the lease is no longer considered an important bighorn sheep winter range or lambing area.

**WILDLIFE STIPULATION # 15**

[CODE LC13] **RESOURCE:** Mule Deer Winter Range

**Alternatives:** 2, 3, 4, 5, 6, 7

**Stipulation:** Timing Limitation

**Objective:** To limit or preclude oil and gas activities from taking place in important habitat components during critical use periods. Construction and drilling activities will not be allowed in mule deer winter range habitat from 12/1 through 5/15.

**Waiver:** A waiver may be granted if habitat studies in coordination with the Montana Department of Fish, Wildlife and Parks conclude that the area is no longer considered important mule deer winter range.

**Exception:** An exception may be granted if an analysis conducted at the time a drilling proposal is received shows that the proposed action will not have adverse impacts to mule deer winter range.

**Modification:** A modification may be granted if a portion of the area is no longer considered important mule deer winter range.

#### WILDLIFE STIPULATION # 16

**RESOURCE:** Mule Deer Transitional Range

**Alternatives:** 2

**Stipulation:** Timing Limitation

**Objective:** To limit or preclude oil and gas activities from taking place in important habitat components during critical use periods. Construction and drilling activities will not be allowed in mule deer transitional range from 10/15 through 12/31.

**Waiver:** A waiver may be granted if habitat studies in coordination with the Montana Department of Fish, Wildlife and Parks conclude that the area is no longer considered important mule deer transitional range.

**Exception:** An exception may be granted if an analysis conducted at the time a drilling proposal is received shows that the proposed action will not have adverse impacts to mule deer transitional range or their use that habitat.

**Modification:** A modification may be granted if a portion of the area is no longer considered important mule deer transitional range.

#### WILDLIFE STIPULATION # 17

**RESOURCE:** Overlapping Wildlife Seasonal Ranges

**Alternatives:** 2, 5

**Stipulation:** No Surface Occupancy

**Objective:** To protect areas in which more than one wildlife specie uses a habitat and the combined seasons of use leave a very limited or no opportunity for oil and gas occupancy (i.e. occupancy window of 90 days or less).

**Waiver:** A waiver may be granted if habitat studies in coordination with the Montana Department of Fish, Wildlife and Parks conclude that the area is no longer used by some wildlife species and occupancy opportunities exist.

**Exception:** An exception may be granted if an analysis conducted at the time a drilling proposal is received shows that the proposed action will not have adverse impacts to wildlife species or the use that habitat, or that activities can be completed within the window of occupancy.

**Modification:** A modification may be granted if a portion of the lease is no longer used by some wildlife specie(s) and occupancy opportunities are available.

**WILDLIFE STIPULATION # 18**

**RESOURCE:** Elk Summer Range and Old Growth Habitat (Little Belt Mountains)

**Alternatives:** 7

**Stipulation:** Controlled Surface Use

**Objective:** To limit activity levels in time and space within occupied elk summer range or old growth habitat. This could include delay of operations greater than 60 days, movements of drilling sites greater than 200 meters, or limits to total amount of development at any one time to avoid cumulative impacts from other activities.

**Waiver:** A waiver of this stipulation is not foreseen.

**Exception:** An exception may be granted if an analysis conducted at the time a drilling proposal is received shows that the proposed action will not have adverse impacts to elk summer range or the actual area for roads and drill pads are not within old growth habitats.

**Modification:** A modification to this stipulation is not foreseen.

**HERITAGE RESOURCE STIPULATION # 1**

<b>RESOURCE:</b>	<b>Identified Traditional Cultural Districts</b>
<b>Alternatives:</b>	3
<b>Stipulation:</b>	Controlled Surface Use
<b>Objective:</b>	To mitigate impacts to areas having traditional cultural significance to American Indians, activities may be scheduled to avoid disturbances during certain seasonal use periods, or special measures may be necessary, including screening or other visual mitigations, or relocation of the wellsite >200 meters.
<b>Waiver:</b>	A waiver may be granted if the area is no longer considered a traditional cultural district.
<b>Exception:</b>	An exception to this stipulation is not foreseen.
<b>Modification:</b>	This stipulation may be modified if a portion of the area is no longer identified as containing traditional cultural properties.

**HERITAGE RESOURCES STIPULATION #2**

<b>RESOURCE:</b>	<b>Identified Traditional Cultural Districts</b>
<b>Stipulation:</b>	No Surface Occupancy
<b>Alternatives:</b>	4(b)
<b>Objective:</b>	To protect significant heritage resources and to avoid disturbance to areas identified as having traditional cultural significance to American Indians.
<b>Waiver:</b>	This stipulation may be waived if it is determined that all designated sites or areas within the lease can be occupied without adversely affecting the cultural resource values for which the sites or areas were designated.
<b>Exception:</b>	If the authorized officer, with concurrence from the State Historic Preservation Office, determines that proposed oil and gas activities would not adversely affect an identified traditional cultural district, an exception may be granted.
<b>Modification:</b>	A modification may be granted if portions of the lease are determined to no longer contain traditional cultural properties.

**HERITAGE RESOURCES STIPULATION #3**

<b>RESOURCE:</b>	<b>Individual Traditional Cultural Properties</b>
<b>Stipulation:</b>	No Surface Occupancy
<b>Alternatives:</b>	7
<b>Objective:</b>	To protect significant heritage resources and to avoid disturbance to individual properties identified as having traditional cultural significance to American Indians.
<b>Waiver:</b>	This stipulation may be waived by the authorized officer if it is determined that all designated sites or areas within the lease can be occupied without adversely affecting the cultural resource values for which the sites or areas were designated.

**Exception:** If the authorized officer, with concurrence from the State Historic Preservation Office, determines that proposed oil and gas activities would not adversely affect an identified traditional cultural property, or the values for which it was designated, an exception may be granted.

**Modification:** A modification may be granted if portions of the lease are determined to no longer contain traditional cultural properties.

#### HERITAGE RESOURCE STIPULATION # 4

**RESOURCE:** Identified Historic Districts

**Alternatives:** 7

**Stipulation:** Controlled Surface Use

**Objective:** To mitigate impacts to areas identified as historic districts and their associated setting. Special measures may be necessary, including screening or other visual mitigations, or relocation of the wellsite >200 meters.

**Waiver:** A waiver may be granted if the area is determined not to be eligible for listing on the National Historic Register.

**Exception:** An exception may be granted if the operator can demonstrate in a plan of operations that activities as proposed will have no effect on historic districts.

**Modification:** This stipulation may be modified if a portion of the area under lease is determined not to contain a historic district eligible for listing on the National Historic Register.

#### SENSITIVE PLANT STIPULATION # 1

**RESOURCE:** Core Populations of northern rattlesnake-plantain (*Goodyera repens*)

**Alternatives:** 3

**Stipulation:** Controlled Surface Use

**Objective:** To protect core populations of northern rattlesnake-plantain as part of a conservation strategy for identified sensitive plant populations. An operator may be required to move a wellsite location greater than 200 meters to avoid specified core populations, and special measures may be required to mitigate impacts to plants.

**Waiver:** A waiver may be granted if the area no longer contains northern rattlesnake-plantain or the habitat to support them.

**Exception:** An exception to this stipulation is not foreseen.

**Modification:** A modification may be granted if a portion of the area under stipulation no longer contains northern rattlesnake-plantain or the habitat to support them.



**SENSITIVE PLANT STIPULATION # 2**

<b>RESOURCE:</b>	<b>Core Populations of northern rattlesnake-plantain (<i>Goodyera repens</i>)</b>
<b>Alternatives:</b>	4(a&b), 5, 6, 7
<b>Stipulation:</b>	No Surface Occupancy
<b>Objective:</b>	To protect core populations of northern rattlesnake-plantain as part of a conservation strategy for identified sensitive plant populations. Surface occupancy, including the construction of roads, drillpads, and support facilities, would not be allowed in areas supporting core populations of northern rattlesnake-plantain.
<b>Waiver:</b>	A waiver may be granted if the area no longer contains northern rattlesnake-plantain or the habitat to support them.
<b>Exception:</b>	An exception to this stipulation is not foreseen.
<b>Modification:</b>	A modification may be granted if a portion of the area under stipulation no longer contains northern rattlesnake-plantain or the habitat to support them.

**SENSITIVE PLANT STIPULATION # 3**

<b>RESOURCE:</b>	<b>High Probability Areas for Sensitive Plants</b>
<b>Alternatives:</b>	4(a&b), 5, and 6, 7
<b>Stipulation:</b>	Controlled Surface Use
<b>Objective:</b>	To provide for protection of areas identified as having a high probability for the occurrence of sensitive plant species. This would allow for moving a drillsite location more than 200 meters to avoid areas supporting sensitive plants.
<b>Waiver:</b>	This stipulation could be waived if a survey shows that the area identified is not occupied by sensitive plant species, or if identified plants are no longer designated as sensitive.
<b>Exception:</b>	An exception to this stipulation could be granted if an operator can demonstrate that proposed activities would not impact sensitive plants.
<b>Modification:</b>	This stipulation may be modified if studies show that portions of the lease are no longer considered to have potential to support sensitive plant species.

**WATERSHED/FISHERIES STIPULATION # 1**

<b>RESOURCE:</b>	<b>Riparian Areas/Floodplains/Wetlands</b>
<b>Alternatives:</b>	2, 3, 4(a&b), 6, 7
<b>Stipulation:</b>	Controlled Surface Use
<b>Objective:</b>	To reduce the risks of impairing hydrologic functions and aquatic systems and to reduce the potential for a net loss in habitat or floodplain area. Drill pads may be moved beyond a distance provided for under Standard Lease Terms, if suitable pad locations are available outside of these areas. If suitable locations are not available, special design may be required for occupancy within this area. These include, but are not limited to, elevated drill pads, construction of new habitat or rehabilitation of existing impaired habitat, or complete recovery of disturbed habitat from these activities.
<b>Waiver:</b>	A waiver to this stipulation could be granted if an on-the-ground review showed there were no riparian areas/floodplains/wetlands within the entire lease.

**Exception:** An exception to this stipulation is not foreseen.

**Modification:** The areas affected by this stipulation may be modified by the authorized officer if it is determined that riparian areas, wetlands or floodplains do not exist on portions of the lease.

#### **WATERSHED/FISHERIES STIPULATION # 2**

**RESOURCE:** Riparian Areas/Floodplains/Wetlands

**Alternatives:** 2, 5, 6

**Stipulation:** No Surface Occupancy

**Objective:** To eliminate risks of impairing hydrologic functions and aquatic systems and to eliminate the potential for a net loss in habitat or floodplain area by precluding placement of roads or drill pads within identified riparian areas, floodplains, and wetlands.

**Waiver:** The areas affected by this stipulation may be waived by the authorized officer if it is determined that riparian areas, wetlands or floodplains do not exist anywhere within the leasehold.

**Exception:** An exception to this stipulation may be granted by the authorized officer if the operator demonstrates through an approved plan of operations that the cumulative impacts associated with the proposed action are acceptable or can be adequately mitigated.

**Modification:** The areas affected by this stipulation may be modified by the authorized officer if it is determined that riparian areas, wetlands or floodplains do not exist on portions of the leasehold.

#### **WATERSHED/FISHERIES STIPULATION # 3**

**RESOURCE:** Municipal Watersheds

**Alternatives:** 2, 3, 4(a&b), 6, and 7

**Stipulation:** Controlled Surface Use

**Objective:** To reduce the risks of cumulative impacts to hydrologic functions and aquatic systems in municipal watersheds. All new road construction and stream crossings associated with oil and gas exploration and development may be limited to the road impact factor identified for a drainage. Activities will be allowed, but may require that past or current impacts be reduced prior to oil and gas activities. Additionally, in municipal watershed drainages where other management activities have been scheduled, postponement of new oil and gas activities may be necessary to reduce the risks of significant cumulative effects.

**Waiver:** The areas affected by this stipulation may be waived by the authorized officer if it is determined that the leasehold no longer contains a municipal water supply area.

**Exception:** An exception to this stipulation is not foreseen.

**Modification:** The areas affected by this stipulation may be modified by the authorized officer if it is determined that the municipal water source boundaries have changed.

**WATERSHED/FISHERIES STIPULATION # 4**

<b>RESOURCE:</b>	<b>Municipal Watersheds</b>
Alternative:	5 & 7
Stipulation:	No Surface Occupancy
Objective:	Surface occupancy is prohibited to eliminate the risks of impairing hydrologic functions and aquatic systems associated with cumulative impacts in municipal watersheds.
Waiver:	This stipulation may be waived by the authorized officer if it is determined that the leasehold no longer contains a municipal water supply area.
Exception:	An exception to this stipulation may be granted by the authorized officer if the operator demonstrates through a plan of operations that the cumulative impacts associated with the proposed action are acceptable or can be adequately mitigated.
Modification:	The areas affected by this stipulation may be modified by the authorized officer if it is determined that the municipal water source boundaries have changed.

**WATERSHED/FISHERIES STIPULATION # 5**

[CODE LC22]

<b>RESOURCE:</b>	<b>Surface Water Quality</b>
Alternatives:	3, 4(a&b), 5, 6, and 7
Stipulation:	Controlled Surface Use
Objective:	To limit cumulative road mileage and number of stream crossings within a watershed in order to maintain a low level of risk of impairing surface water quality and beneficial uses. All new road construction and stream crossings associated with oil and gas exploration and development may be limited to the road impact factor identified for a drainage. This may be accomplished by obliterating or rehabilitating existing roads which are a significant sediment source prior to creating new road construction for oil and gas activities. The operator must demonstrate through a plan of operations that cumulative impacts to surface water resources associated with the proposed action are acceptable or can be adequately mitigated to meet water quality standards. Additionally, in drainages where other management activities have been scheduled, postponement of new oil and gas activities may be required to reduce the risk of significant cumulative effects.
Waiver:	A waiver to this stipulation is not foreseen.
Exception:	An exception to this stipulation to this stipulation could be granted if the operator can show through an analysis that no net increase in sediment would result from the proposed action.
Modification:	The areas affected by this stipulation may be modified if the water resource analysis screening process changes and identifies a different watershed disturbance/risk level.

**WATERSHED/FISHERIES STIPULATION # 6**

<b>RESOURCE:</b>	<b>Westslope Cutthroat Trout Habitat</b>
Alternatives:	3 - applies to drainages supporting either "managed as pure" (98-100% genetically pure), OR "indicator" (90-97% genetically pure) populations

5 and 6 - applies to drainages supporting "indicator" populations (90-97% genetically pure)

Stipulation:	Controlled Surface Use
Objective:	To maintain westslope cutthroat trout habitat through maintenance and protection of aquatic system health in drainages important to the viability of the species. This can be accomplished by reducing net increases in stream sediment loads resulting from oil and gas exploration and development activities to zero, or minimizing to greatest extent possible, in these drainages. Existing roads will be used wherever possible, other sediment sources will be reduced or eliminated, new roads will be located away from water channels, sediment filtering zones will be utilized, stream crossings will be minimized, and erosion control treatments will be applied to all disturbed surfaces.
Waiver:	A waiver may be granted if the drainage, including the westslope cutthroat population and its habitat, is no longer considered important to the viability of the species.
Exception:	An exception to this stipulation is not foreseen.
Modification:	A modification may be granted if a portion of the drainage, including the westslope cutthroat populations and its habitat, is no longer considered important to the viability of the species.

#### WATERSHED/FISHERIES STIPULATION # 7

<b>RESOURCE:</b>	<b>Westslope Cutthroat Trout Habitat</b>
Alternatives:	4(b)- applies to drainages supporting either "managed as pure" (98-100% genetically pure), OR "indicator" (90-97% genetically pure) populations
Stipulation:	No Surface Occupancy
Objective:	To maintain westslope cutthroat trout habitat by prohibiting surface occupancy within drainages supporting populations of westslope cutthroat trout.
Waiver:	Waivers, exception, or modifications to this stipulation are not foreseen.
Exception:	See above.
Modification:	See above.

#### WATERSHED/FISHERIES STIPULATION # 8

<b>RESOURCE:</b>	<b>Westslope Cutthroat Trout Habitat</b>
Alternatives:	7 - applies to drainages supporting either "managed as pure" (98-100% genetically pure), OR "indicator" (90-97% genetically pure) populations  5, 6 - applies to drainages supporting "managed as pure" populations (98-100% genetically pure)
Stipulation:	No Surface Occupancy
Objective:	To maintain westslope cutthroat trout habitat by prohibiting surface occupancy within drainages supporting populations of westslope cutthroat trout.
Waiver:	A waiver may be granted if the drainage, including the westslope cutthroat trout populations and its habitat, is no longer considered important to the viability of the species.
Exception:	An exception may be granted in roaded drainages if there are opportunities to use existing roads and the operator can demonstrate that activities, including drillpads (which may require minimal spur access. i.e. less than 1/4 mile), would not result in net increases in sediment and there would be no effects to water quality or quantity. In unroaded drainages, an exception for a drill pad or pipeline

ONLY may be granted if the operator can demonstrate that there would be no net increase in sediment and no adverse effect on water quality and quantity.

**Modification:** A modification may be granted if a portion of the drainage, including the westslope cutthroat populations and its habitat, is no longer considered important to the viability of the species.

**SOILS STIPULATION # 1**

[CODE LC24] **RESOURCE:**

**Slopes greater than 60 percent**

**Alternatives:** 2, 3, 4, 5, 6, 7

**Stipulation:** No Surface Occupancy

**Objective:** To preclude construction of well sites and related facilities on slopes over 60% which would be difficult to rehabilitate.

**Waiver:** Waivers to this stipulation may be granted if on-the-ground review shows the entire leasehold is on slopes less than 60%.

**Exception:** An exception may be granted if the operator can demonstrate in a surface use plan of operations that adverse effects can be minimized, or that engineering design of the site can mitigate erosion and reclamation concerns, and activities safely conducted.

**Modification:** A modification may be granted if an on-the-ground review of a proposed well site or facility shows that an area of less than 60% slope exists.

**SOILS STIPULATION #2**

**RESOURCE:** Areas of Severe Mass Failure

**Alternative:** 2, 3, 4, 6, 7

**Stipulation:** Controlled Surface Use

**Objective:** To require activities in areas of mass failure to be located and/or designed to avoid or minimize the potential for adverse effects to soil and water. This may require special engineering designs.

**Waiver:** Waivers to this stipulation are not foreseen.

**Exception:** An exception to this stipulation is not foreseen.

**Modification:** A modification may be granted if an on-the-ground review of a proposed well site or facility shows that sensitive soils do not exist or that engineering design of the site can mitigate erosion and reclamation concerns.

**SOILS STIPULATION #3**

**RESOURCE:** Areas of Severe Mass Failure

**Alternatives:** 5

**Stipulation:** No Surface Occupancy

**Objective:** To preclude construction of well sites and related facilities in areas where the potential for mass failure exists, and which would be difficult to rehabilitate. These areas also have a high erosion and stability hazard and would be difficult to reclaim.

## A

- Waiver:** A waiver to this stipulation may be granted if an on-the-ground review shows that areas of severe mass failure do not exist anywhere on the lease.
- Exception:** An exception may be granted if the operator can demonstrate in a surface use plan of operations that adverse effects can be minimized, or that engineering design of the site can mitigate erosion and reclamation concerns, and activities can be safely conducted.
- Modification:** A modification may be granted if an on-the-ground review of a proposed well site or facility shows an area of mass-wasted soils does not exist.

**SOILS STIPULATION #4**

- RESOURCE:** Areas of Moderate Mass Failure
- Alternative:** 2, 4, 5, 6, 7
- Stipulation:** Controlled Surface Use
- Objective:** To require activities in areas of moderate mass failure to be located and/or designed to avoid or minimize the potential for adverse effects to soil and water.
- Waiver:** Waivers to this stipulation may be granted if an on-the-ground review reveals shows that no areas of mass failure exist on the lease.
- Exception:** An exception to this stipulation is not foreseen.
- Modification:** A modification may be granted if an on-the-ground review of a proposed well site or facility shows that sensitive soils do not exist.

**SOILS STIPULATION #5**

[CODE LC27]

- RESOURCE:** Wetland Soils
- Alternative:** 4, 6, 7
- Stipulation:** Controlled Surface Use
- Objective:** To require that activities on soils identified as having wetland components be located and/or designed to avoid or minimize the potential for adverse effects to jurisdictional wetlands relative to Executive Order 11990. This may require elevated drillpads, construction of new habitat, or complete recovery of disturbed habitat from oil and gas activities.
- Waiver:** This stipulation may be waived if an on-the-ground review determines that the entire leasehold does not contain wetland soils.
- Exception:** An exception may be granted if the operator can demonstrate in a surface use plan of operations that adverse effects can be minimized, there are no practicable alternatives, and a 404 permit can be obtained.
- Modification:** A modification may be granted if an on-the-ground review reveals that a portion of the leasehold does not contain wetland soils.

**SOILS STIPULATION #6**

**RESOURCE:** Slopes Between 40-60%

**Alternative:** 2

**Stipulation:** No Surface Occupancy (Forest Plan)

**Objective:** To preclude the construction of drill pads only on slopes between 40-60% to avoid or minimize the potential for adverse effects to soil and water and difficulties in rehabilitation.

**Waiver:** Waivers to this stipulation are not foreseen.

**Exception:** An exception may be granted if the operator can demonstrate in a surface use plan of operations that adverse effects can be minimized and activities safely conducted.

**Modification:** A modification may be granted if an on-the-ground review of a proposed well site or facility shows that an area of less than 40% exists or that engineering design of the site can mitigate erosion and reclamation concerns.

**SOILS STIPULATION #7**

**RESOURCE:** Slopes Between 40-60%

**Alternative:** 3

**Stipulation:** Controlled Surface Use

**Objective:** To require activities in areas of slopes between 40-60% to be located and/or designed to avoid or minimize the potential for adverse effects to soil and water.

**Waiver:** A waiver to this stipulation may be granted if an on-the-ground review shows that slopes between 40-60% do not exist anywhere on the lease.

**Exception:** An exception may be granted if the operator can demonstrate in a surface use plan of operations that adverse effects can be minimized and activities safely conducted.

**Modification:** A modification may be granted if an on-the-ground review shows that an area of less than 40% exists.

**SOILS STIPULATION #8**

**RESOURCE:** Slopes Between 40-60%

**Alternative:** 4 (a&b)

**Stipulation:** No Surface Occupancy

**Objective:** To preclude the construction of roads, drillpads, and other facilities on slopes between 40-60% to avoid or minimize the potential for adverse effects to soil and water and difficulties in rehabilitation.

**Waiver:** A waivers to this stipulation may be granted if an on-the-ground inspection shows that there are no areas of slopes between 40-60% anywhere on the lease.

**Exception:** An exception may be granted if the operator can demonstrate in a surface use plan of operations that adverse effects can be minimized and activities safely conducted.

**Modification:** A modification may be granted if an on-the-ground review of a proposed well site or facility shows that an area of less than 40% exists on the lease.

**RECREATION STIPULATION #1**

**RESOURCE:** Administrative Sites.  
Developed Recreation Sites/Special Use Cabins/Resorts.

**Alternatives:** 2, 3, 4, 6, 7

**Stipulation:** No Surface Occupancy

**Objective:** To preclude surface occupancy and surface disturbing activities within ¼ mile of developed recreation sites, special use cabin and resort areas, and administrative sites.

**Waiver:** A waiver may be granted if the entire leasehold no longer contains portions of administrative or developed recreation sites, or special use cabins or resorts.

**Exception:** An exception may be granted if the operator can demonstrate in a surface use plan of operations that proposed actions will not adversely impact recreation and/or administrative sites.

**Modification:** A modification may be granted if a portion of the leasehold no longer contains administrative or developed recreation sites, special use cabins and resorts.

**RECREATION STIPULATION #2**

**RESOURCE:** Administrative Sites.  
Developed Recreation Sites/Special Use Cabins/Resorts.

**Alternatives:** 5

**Stipulation:** Controlled Surface Use

**Objective:** To control surface occupancy and new surface disturbing activities in these area by requiring activities to be located and operations conducted in a manner that will minimize the effects to recreational special uses and administrative uses. Movement of facilities greater than 200 meters may be required. Special design considerations may be required and reclamation requirements must be appropriate to existing uses.

**Waiver:** A waiver may be granted if the entire leasehold no longer contains portions of administrative or developed recreation sites, or special use cabins or resorts.

**Exception:** An exception to this stipulation is not foreseen.

**Modification:** A modification may be granted if a portion of the leasehold no longer contains administrative or developed recreation sites, special use cabins and resorts.

**RECREATION STIPULATION #3**

**RESOURCE:** National Recreation/Scenic Trails

**Alternatives:** 4, 7

**Stipulation:** Controlled Surface Use

**Objective:** To protect National Recreation and Scenic Trail values along a ¼ mile corridor either side of the trail by requiring that proposed activities be designed or located in such a manner as to not affect recreation and scenic values. This could include moving operations more than 200 meters or the use of special design considerations, such as painting, camouflage or screening to blend in with natural surroundings.



**Waiver:** This stipulation may be waived if a trail is no longer considered a National Scenic or Recreation trail.

**Exception:** An exception to this stipulation is not foreseen.

**Modification:** A modification may be granted if a portion of the leasehold no longer contains trails designated as National Scenic or Recreation.

#### RECREATION STIPULATION #4

**RESOURCE:** National Recreation/Scenic Trails

**Alternatives:** 5

**Stipulation:** No Surface Occupancy

**Objective:** To protect National Recreation and Scenic Trail values along a ¼ mile corridor either side of the trail by precluding the construction of wellsites and related facilities.

**Waiver:** This stipulation may be waived if a trail is no longer considered a National Scenic or Recreation trail.

**Exception:** An exception may be granted if the operator can demonstrate in a plan of operations that impacts from the proposed action are acceptable or can be adequately mitigated.

**Modification:** A modification may be granted if a portion of the leasehold no longer contains a National Scenic or Recreation trail.

#### RECREATION STIPULATION #5

**RESOURCE:** Trails in Management Areas other than A-C, L, O, T

**Alternatives:** 4, 5, 7

**Stipulation:** Controlled Surface Use

**Objective:** To protect Forest trails along a ¼ mile corridor either side of the trail in management areas in which improvements are minimized by requiring that proposed activities be designed or located in such a manner as to not affect recreation and scenic values. This could include moving operations more than 200 meters or the use of special design considerations, such as painting, camouflage or screening to blend in with natural surroundings.

**Waiver:** This stipulation may be waived if a trail is no longer a designated Forest trail.

**Exception:** An exception to this stipulation is not foreseen.

**Modification:** A modification may be granted if a portion of the lease does not contain a designated Forest trail.

#### RECREATION STIPULATION # 6

**RESOURCE:** Wild River Candidates

**Stipulation:** No Surface Occupancy - ¼ mile corridor

**Alternatives:** 3

**Objective:** To preclude activity within a ¼ mile zone on either side of river segments assigned a wild classification until a final decision has been made on their designation into the National Rivers System.

<b>Waiver:</b>	This stipulation may be waived if it is determined the entire lease no longer contains a wild river candidate area.
<b>Exception:</b>	An exception may be granted if the operator can demonstrate in a surface use plan of operations that the wild river values of the area can be maintained at a level acceptable to the authorized forest officer.
<b>Modification:</b>	This stipulation may be modified if it is determined portions of the lease no longer contain wild river candidate areas.

#### **RECREATION STIPULATION # 7**

<b>RESOURCE:</b>	<b>Scenic And Recreational River Candidates</b>
<b>Stipulation:</b>	Controlled Surface Use - ¼ mile corridor
<b>Alternatives:</b>	4, 5 and 7
<b>Objective:</b>	To protect scenic or recreational river values along the river corridor (¼ mile on either side) until a final decision is made on their designations into the National Rivers System. Proposed activities must be designed or located in such a manner as to not affect the eligibility of the river segment.
<b>Waiver:</b>	This stipulation may be waived if it is determined the entire lease no longer contains a scenic or recreational river candidate area.
<b>Exception:</b>	An exception to this stipulation is not foreseen.
<b>Modification:</b>	This stipulation may be modified if it is determined portions of the lease no longer contain scenic or recreational river candidate areas.

#### **RECREATION STIPULATION # 8**

<b>RESOURCE:</b>	<b>Scenic And Recreational River Candidates</b>
<b>Stipulation:</b>	No Surface Occupancy - ¼ mile corridor
<b>Alternatives:</b>	<u>6</u>
<b>Objective:</b>	To preclude activity within a ¼ mile zone on either side of river segments assigned a scenic or recreational classification until a final decision has been made on their designation into the National Rivers System.
<b>Waiver:</b>	This stipulation may be waived if it is determined the entire lease no longer contains a scenic or recreational river candidate area.
<b>Exception:</b>	An exception may be granted if the operator can demonstrate in a surface use plan of operations that the scenic or recreational river values of the area can be maintained at a level acceptable to the authorized forest officer.
<b>Modification:</b>	This stipulation may be modified if it is determined portions of the lease no longer contain scenic or recreational river candidate areas.

**SCENIC RESOURCES STIPULATION # 1**

<b>RESOURCE:</b>	<b>Scenic Resources - Visually Sensitive Areas</b>
Stipulation:	No Surface Occupancy
Alternatives:	5
Objective:	To protect the visual quality of areas exhibiting sensitivity to visual impacts by precluding the construction of roads, drillpads, and other facilities.
Waiver:	This stipulation may be waived if none of the leasehold is determined to be within a visually sensitive area.
Exception:	An exception may be granted if the operator can demonstrate in a surface use plan of operations that the visual quality of the area can be maintained.
Modification:	This stipulation may be modified if portions of the lease are determined to be excluded from visually sensitive areas.

**SCENIC RESOURCES STIPULATION # 2**

[CODE LC32] <b>RESOURCE:</b>	<b>Scenic Resources - Visually Sensitive Areas</b>
Stipulation:	Controlled Surface Use
Alternatives:	3, 4, 5, 6, and 7
Objective:	To protect the visual quality of areas exhibiting sensitivity to visual impacts, which could include requirements for special design considerations to screen, camouflage, or reduce visual impacts to an acceptable level. The operator may also be required to move wellsite locations greater than 200 meters to avoid visually sensitive areas.
Waiver:	This stipulation may be waived if none of the leasehold is determined to be within a visually sensitivity area.
Exception:	An exception to this stipulation is not foreseen.
Modification:	This stipulation may be modified if portions of the lease are determined to be excluded from visually sensitivity areas.

**OTHER RESOURCE STIPULATION # 1**

[CODE LC33] <b>RESOURCE:</b>	<b>Research Natural Areas</b>
Stipulation:	No Surface Occupancy
Alternatives:	2, 4, 5, 6, and 7
Objective:	To preclude surface disturbance within the area in order to maintain its near natural conditions for future research use.
Waiver:	A waiver may be granted if it is determined the entire leasehold no longer contains Research Natural Areas.

**Exception:** An exception to this stipulation is not foreseen.

**Modification:** A modification may be granted if the Research Natural Area boundaries have changed.

#### OTHER RESOURCE STIPULATION # 2

**RESOURCE:** Gibson Recreation Area

**Stipulation:** No Surface Occupancy

**Alternatives:** 2

**Objective:** To preclude surface disturbance within the area in order to protect recreation, wildlife and scenic values.

**Waiver:** A waiver may be granted if the area is no longer intensively managed for such purposes.

**Exception:** An exception to this stipulation is not foreseen.

**Modification:** A modification may be granted if the Recreation Area boundaries have changed.

#### OTHER RESOURCE STIPULATION # 3

**RESOURCE:** Gibson Recreation Area

**Stipulation:** Controlled Surface Use

**Alternatives:** 3

**Objective:** To control surface disturbance within the area in order to protect recreation, wildlife, and scenic values. Measures may include special engineering designs to mitigate impacts from noise; access may be restricted to barge or helicopter means; special considerations to mitigate visual impacts; and locations may be moved greater than 200 meters to avoid resource impacts

**Waiver:** A waiver may be granted if the area is no longer intensively managed for such purposes.

**Exception:** An exception to this stipulation is not foreseen.

**Modification:** A modification may be granted if the Recreation Area boundaries have changed.

#### OTHER RESOURCE STIPULATION # 4

**RESOURCE:** Tenderfoot Experimental Forest

**Stipulation:** Controlled Surface Use

**Alternatives:** 2, 3, 4, 5, and 6

**Objective:** To control surface disturbing activities in the Experimental Forest so that they are consistent with management objectives for the research area. Actions on the lease must be compatible with research design and goals, and relocation of drillpads and delay of activities may be necessary to accommodate other uses. Surface disturbance and vegetation removal from construction activities would need to be incorporated into research programs and may require the use of non-conventional equipment or techniques.

**Waiver:** A waiver may be granted if the area is no longer managed as an Experimental Forest.  
**Exception:** An exception to this stipulation is not foreseen.  
**Modification:** A modification may be granted if the Experimental Forest boundaries have changed.

**OTHER RESOURCE STIPULATION # 5**

**RESOURCE:** Tenderfoot Experimental Forest  
**Stipulation:** No Surface Occupancy  
**Alternatives:** 7  
**Objective:** To preclude oil and gas activities within the Tenderfoot Experimental Forest to preserve options for research in the area.  
**Waiver:** A waiver may be granted if the area is no longer managed as an Experimental Forest.  
**Exception:** An exception to this stipulation is not foreseen.  
**Modification:** A modification may be granted if the Experimental Forest boundaries have changed.

**OTHER RESOURCE STIPULATION # 6**

**RESOURCE:** Special Interest Areas  
**Stipulation:** Controlled Surface Use  
**Alternatives:** 4 (a&b)  
**Objective:** To control surface disturbance within the area in order to protect its unique resource values. Measures may include special engineering designs including, but not limited to elevated drillpads, and locations may be moved greater than 200 meters to avoid resource impacts.  
**Waiver:** A waiver may be granted if the area is no longer considered a special interest area.  
**Exception:** An exception to this stipulation is not foreseen.  
**Modification:** A modification may be granted if the boundaries of the special interest area have changed.

[CODE LC35]

**OTHER RESOURCE STIPULATION # 7**

**RESOURCE:** Special Interest Area  
**Stipulation:** No Surface Occupancy  
**Alternatives:** 5, 6 and 7  
**Objective:** To preclude surface disturbance within the area in order to protect its unique resource values. The construction of roads, drillpads, and other facilities would not be allowed.  
**Waiver:** A waiver may be granted if the area is no longer considered a special interest area.  
**Exception:** An exception may be granted if the operator can demonstrate ia surface use plan of operations that the proposed action will not adversely impact special features.  
**Modification:** A modification may be granted if the boundaries of the special interest area have changed.

Craig Little Snake, CO BLM

**No Surface Occupancy**

1. [CODE LS\_CO\_1] No Surface Occupancy (NSO) would be allowed on leases within the area of federally leased coal lands where oil and gas development would likely be incompatible with coal extraction. This stipulation may be waived without a plan amendment if the lessee agrees that the drilling of a well will be subject to the following conditions: (1)(a) well must be plugged when the mine approaches within 500 feet of the well and re-entered or re-drilled upon completion of the mining operation; (b) well must be plugged in accordance with Mine Safety and health Administration (formerly Mine Enforcement and Safety Administration) Informational Report 1052; (c) operator will provide accurate location of where the casing intercepts the coal by providing a directional and deviation survey of the well to the coal operator, or (2) relocate well into a permanent pillar or outside the area to be mined. A suspension of operations and production will be considered for the oil and gas lease only when a well is drilled and later plugged, and a new well or re-entry is planned when the mine moves through the location.

2. [CODE LS\_CO\_2] Grouse (includes sage grouse, mountain sharp-tailed, lesser and greater prairie chickens). NSO within one-quarter mile radius of a lek site (courtship area).  
 Exception for grouse leks. The NSO area may be altered depending upon the active status of the lek or the geographical relationship of topographical barriers and vegetation screening to the lek site.

3. [CODE LS\_CO\_3] Raptors (includes golden eagle, osprey, all accipiters, falcons, except kestrel, butteos, and owls). Raptors that are listed and protected by the Endangered Species Act are addressed separately. NSO within one-eighth mile radius of nest site  
 Exception of raptors nest site. The NSO area may be altered depending on the active status of the nest site or the geographical relationship of topographic barriers and vegetation screening to the nest site.

4. [CODE LS\_CO\_4] Bald Eagle NSO within one-quarter mile radius of the roost or nest site.  
 Exception for bald eagle roost site. The NSO applies to the essential features of the winter roost site complex. The NSO area may be altered depending on the active status of the roost or the geographical relationship of topographic barriers and vegetation screening.

There are no exceptions currently identified.

5. Peregrine Falcon NSO within one-quarter mile radius of cliff nesting complex. :

There are no exceptions currently identified.

6. Mexican Spotted Owl NSO within one-quarter mile radius of the confirmed roost site and nesting site

There are no exceptions currently identified.

7. Waterfowl and Shorebird NSO on significant production areas. (Major areas are Waterfowl Habitat Management Areas and rookeries.)

There are no exceptions currently identified.

8. NSO on habitat areas with special status plant species (Includes federally listed and proposed species for listing and candidate species.)

Exceptions for special status plant species habitat. The NSO may be altered after important factors are considered in the impact analysis such as the type and amount of surface disturbance, plant frequency and density, and the relocation of disturbances.

9. Limestone Ridge ACEC: Protection of remnant plant associations and sensitive plant species, and scenic values  
[CODE LS\_01]

There are no exceptions currently identified.

10. Cross mountain Canyon ACEC: Protection of sensitive plants, endangered species, scenic and recreational values.  
[CODE LS\_LS\_02]

There are no exceptions currently identified.

11. Little Yampa/Juniper Canyon SRMA: Protection of flatwater boating opportunities and scenic values  
[CODE LS\_03]

There are no exceptions currently identified.

12. Cedar Mountain SRMA: Protection of recreational and educational opportunities, and scenic values  
[CODE LS\_04]

There are no exceptions currently identified.

13. Steamboat Lake State Park: Protection of recreational and scenic values.  
[CODE LS\_05]

There are no exceptions currently identified.

14. Pearl Lake State Park: Protection of recreational and scenic values.  
There are no exceptions currently identified.

Additional stipulation maps provided by the office include:

[CODE CEC\_02] NSO (Undifferentiated)

[CODE CEC\_WP] NSO (Undifferentiated)



### Timing Limitation Stipulations

1. Big game species (includes species of mule deer, elk, pronghorn antelope, and bighorn sheep). Note: Crucial winter habitat includes severe big game winter range or other definable winter ranges as mapped by the Colorado Division of Wildlife.

[CODE LS\_CO\_09]

Big Game Crucial Winter Habitat - December 1 to April 30

Exception for big game crucial winter habitat. Under mild winter conditions, the last 60 days of the seasonal limitation period may be suspended. Severity of the winter will be determined on the basis of snow depth, snow crusting, daily mean temperatures, and whether animals were concentrated on the crucial winter range during the winter months.

Exception for big game crucial winter habitat. This limitation may or may not apply to work requiring a Sundry Notice pending environmental analysis of any operational or production aspects.

2. Big Game Birthing Areas: (by species)

[CODE LS\_CO\_10]

a. Elk calving - April 16 to June 30 [

[CODE LS\_CO\_11]

b. Pronghorn Antelope fawning - May 1 to July 15 [

c. Rocky Mountain Bighorn Sheep Lambing - May 1 to July 15 [

d. Desert Bighorn Sheep Lambing - March 16 to May 30 [

Exception for Big Game Birthing Areas. When it is determined through a site-specific environmental analysis that specific actions would not interfere with critical habitat function or compromise animal condition within the project vicinity, the restriction may be altered or removed.

3. Grouse (includes sage grouse, mountain sharp-tailed, and lesser and greater prairie chickens)

[CODE LS\_CO\_15]

Sage grouse crucial winter habitat - December 16 to March 15

There are no exceptions currently identified.

4. Greater Sandhill Crane nesting and staging habitat areas - March 1 to October 16[

[CODE LS\_CO\_16]

There are no exceptions currently identified.

5. White Pelican nesting and feeding habitat areas - March 16 to September 30 [

There are no exceptions currently identified.

6. [CODE LS\_CO\_18] Raptor nesting and fledgling habitat (includes the golden eagle and all accipiters, falcons, except the kestrels\*, all butteos, and owls [except Mexican spotted owls, see Stipulation CO-21, below]) - February 1 to August 15. Raptors that are listed and protected by the Endangered Species Act are addressed separately. [

This seasonal limitation applies to a one-quarter mile buffer zone around the nest site.

\*Kestrels are very adaptable to nest in a variety of habitats and their populations are stable and widespread.

7. [CODE LS\_CO\_19] Ferruginous Hawk nesting and fledgling habitat - February 1 to August 15. The sensitivity of the ferruginous hawk to human-associated disturbance activities requires a one-mile buffer zone to avoid nest abandonment. [

8. Osprey nesting and fledgling habitat - April 1 to August 31. The sensitivity of osprey to human-associated disturbance activities requires a half-mile buffer zone to avoid nest abandonment. [

Exception for raptors, ferruginous hawks, and ospreys (#'s 6., 7., and 8., above) nesting habitat. During years when a nest site is unoccupied or unoccupied by or after May 15, the seasonal limitation may be suspended. It may also be suspended once the young have fledged and dispersed from the nest.

9. Mexican Spotted Owl nesting and fledgling habitat - February 1 to July 31. [

The Mexican spotted owl has been petitioned for listing as a threatened or endangered species to U.S. Fish and Wildlife Service. Subject to the petition determination, the following habitat management guidelines and restrictions will be used to protect the Mexican spotted owl. These guidelines are adopted from the interim timber harvest management guidelines issued by the Forest Service, Southwest Region (*Federal Register*, Vol. 54, No. 124, June 29, 1989).

Mexican spotted owl habitat is restricted by use of a timing limitation applied to core areas within the owl habitat territory. The territories are by definition of two types: (1) territory in which an owl(s) has been spotted, but no nests or roosts have been confirmed, and (2) territory in which there is confirmed nesting, feeding, and roosting activity. The territory of a Mexican spotted owl is thought to be about 2,000 acres and does not overlap with another individual's (or pair's) territory. Within the territory is a core area of 450 acres where there have been sightings only (#1, above), or 1,480 acres where there are confirmed nests and/or roosts (#2, above). The timing restriction from February 1 to July 31 is applied to the core areas (450 or 1,480 acres). A proposed oil and gas operation within the remainder of the territory (2,000 acres minus 450 or 1,480 acres) will be analyzed prior to permit approval and mitigated for compatibility with the owl habitat.

There are no exceptions currently identified.

10. Bald Eagle Nesting Habitat - December 15 to June 15

[CODE LS\_CO\_22]

Restriction for bald eagle courtship behavior and nesting habitat. This time period is extremely sensitive to human-disturbance activities and may cause nest abandonment and desertion of long established territories. A one-half mile buffer zone around the nest site is required to prevent disruption of nesting.

Exception for bald eagle nesting habitat. During years when a nest site is unoccupied by or after May 15, the timing limitation may be suspended. It may also be suspended once the young have fledged and dispersed from the nest.

11. Winter Roost Site - November 16 to April 15. Restriction for bald eagle winter roost site.

[CODE LS\_CO\_23]

The sensitivity of bald eagles to human-disturbance activities requires a one-half mile buffer area around the roost site to avoid relocation to less suitable areas.

Exception for winter roost habitat. If there is partial or complete visual screening of the area of activity, the primary zone around the roost site may be reduced to one-quarter mile.

12. Peregrine Falcon Cliff Nesting Complex - March 16 to July 31

Restriction for peregrine falcon cliff nesting complex. The sensitivity of peregrine falcon to human-disturbance activities requires a half-mile buffer area around the nesting complex to prevent abandonment and desertion of established territories.

The following exception would apply only after formal Section 7 Consultation with the U.S. Fish and Wildlife Service was consummated.

Exception for nesting habitat. During years when a nest site is unoccupied by or after May 15, the seasonal limitation may be suspended. It may also be suspended once the young have fledged and dispersed from the nest.

13. Isolated and/or Roadless Areas: August 16 to November 14.

[CODE LS\_07]

There are no exceptions currently identified.

14. No helicopter or motor vehicle use would be allowed in the Wild Horse Herd Management Area (March 2 to June 30) - foaling season for wild horses.

[CODE LS\_08]

There are no exceptions currently identified.

15. No drilling or development operations activity would be permitted within a one-mile radius of the location listed below, from March 1 to December 1:

[CODE LS\_09]

Wild Horse Spring; NE1/4SE1/4 sec. 26, T. 10 N., R. 98 W.

Additional stipulation maps provided by the office:

[CODE LS_CO_25]	Coal Leasing Areas, CSU	A1-5	CSU Slope >40%	[CODE LS_CO_27]
[CODE LS_CO_26]	Fragile Soil Area, CSU		Irish Canyon AGECS-CSU	[CODE LS10]
[CODE LS_CO_28]	Riparian/Wetland Vegetation Zones CSU		Lookout Acec CSU	[CODE LS_LS_11]
[CODE LS_CO_NL]	No Leasing	Critical Environmental Concern	[CODES LS_CEC_02, LS_CEC_WP]	

Lopez Project  
Paradox/San Juan Study Area

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Stip Code	Stip Category	Stip description
SCODE [CODE LO_L2_10_1]	CSU	Esthetic SLINE To maintain esthetic values, all semi-permanent and permanent facilities may require painting or camouflage to blend with the natural surroundings. The paint's election or method of camouflage will be subject to approval by the authorized officer of the Bureau of Land Management. A lease for the above parcel will be subject to special stipulations on Form USO 3100-13. A lease for the above parcel will be subject to special stipulations on Form USO 3100-76.
[CODE LO_L2_11_3]	CSU	Lease A lease for the above parcel will be subject to special stipulations on Form USO 3100-79a.
[CODE LO_L2_12_1]	NSO	Watershed conditions. In order to minimize watershed damage during muddy and wet periods, the authorized officer of the Bureau of Land Management may prohibit surface disturbing activities. This limitation does not apply to maintenance and operation of producing wells.
	_45_ _45_	antelope as crucial pronghorn (antelope) habitat. Modifications may be required in the surface use plan to protect the pronghorn during the kidding period of May 15 to June 20.
	CSU	Visual Qual visual resources. Modifications may be required in the surface use plan to help protect the visual qualities of the area.
	_9 _9	Dr Mig as the primary migration path of deer from summer range to winter range (October 1 to October 20). Modifications may be required in the surface use to protect the deer during this time period.
	CSU	Serv Win severe winter conditions. Modifications to the applicant's surface use plan may be required to protect the environment during severe winter conditions.
[CODE LO_L2_12_6]	CSU	Blue Mt the U. S. 40 to Blue Mountain scenic travel corridor. Modifications may be required in the surface use plan to help protect the visual qualities of the area.
	CSU	ROW NOTICE: Due to the West Desert Pumping Project and Amax Corporation's evaporation ponds, major areas of public land will be subject to intermittent flooding. Therefore, all leasing of both solid and fluid minerals will be subject to these rights-of-way as delineated on the master title plats. Lessees should be aware that exploration and development may include specific mitigation to protect the project's integrity. This mitigation could greatly increase the lessee's cost.
[CODE LO_L2_16_1]	NSO	Sprg/Fldp No occupancy or other surface disturbance will be allowed within 330 feet of the centerline or within the 100-year recurrence interval floodplain, whichever is greater, of the perennial streams, or within 660 feet of springs, whether flowing or not. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
	AB0123 AB0123	Watershed - In order to minimize watershed damage, exploration, drilling, and other development activity will be allowed only during the period from April 30 to

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			November 1. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
			-
[CODE LO_L2_16_1_1]	CSU	Slopes>30	Construction of access roads and drill pads on slopes in excess of 30 percent
[CODE LO_16_1_1]			
[CODE LO_L2_16_1_2]	NSO	Slopes>50	will require special design standards to minimize watershed damage. Drilling operations and any associated construction activities on slopes in excess of 50 percent may require directional drilling to prevent damage to the watershed. Exceptions to the limitations may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE LO_16_1_2]			
[CODE LO_L2_L17_1]	NSO	springs	No occupancy or other surface disturbance will be allowed within 660 feet of springs, whether flowing or not. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_17_1]			
	AB0123	Watershed	In order to minimize watershed damage, exploration, drilling, and other development will be allowed only during the period from April 30 to November 1. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
	AB0123		
	CSU	Slopes>30	-
	NSO	Slopes>50	Construction of access roads and drill pads on slopes in excess of 30 percent will require special design standards to minimize watershed damage. Drilling operations and any associated construction activities on slopes in excess of 50 percent will not be allowed. Exceptions to the limitations may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_2_2]	NSO	Fisher Tw	No access or work trail or road, earth cut or fill, structure or other improvement, other than an active drilling rig, will be permitted if it can be viewed from Fisher Tower Campground.
[CODE L2_2_3]	CSU	Highway	No access or work trail or road, earth cut or fill, structure or other improvement, other than an active drilling rig, will be permitted if it can be viewed from major highway systems.
	_B01234_	Wildlife Hb	In order to protect seasonal wildlife habitat, exploration, drilling, and other development activity will be allowed only during the period from May 15 to December 15. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
	_B01234_		
	CSU	White Rv V	No access or work trail or road, earth cut or fill, structure or other improvement, other than an active drilling rig, will be permitted if it can be viewed from the White River.
	CSU	Rec Area	No access or work trail or road, earth cut or fill, structure or other improvement, other than an active drilling rig, will be permitted if it can be viewed from the recreation area, campground, or hiking trails.

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[CODE L2_3_1]	NSO	Lease	No occupancy or other activity on the surface is allowed under this lease.
[CODE LO_L2_30_1]	NSO	Raptor Nes	Raptor surveys will be required whenever surface disturbances and/or occupancy proposed in association with oil/gas exploration occur within a known nesting complex for raptors. Field surveys will be conducted by the lessee/operator as determined by the authorized officer of the Bureau of Land Management. When surveys are required of the lessee/operator, the consultant hired must be found acceptable to the authorized officer prior to the field survey being conducted. Based on the results of the field survey, the authorized officer will determine appropriate buffer zones.
	NSO	LC Marsh	No occupancy or other surface disturbance will be allowed within 600 feet of the Lake Creek Marsh Complex. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE LO_L2_4_10]	NSO	Rainbow Rd	No occupancy or other surface disturbance will be allowed within 1,300 feet of Rainbow Park Road. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
	NSO	Lv Water	No occupancy or other surface disturbance will be allowed within 1,500 feet of live water. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_4_12]	NSO	Col Rv Buf	No occupancy or other surface disturbance will be allowed within 1/4 mile of the channel centerline of the Colorado River. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_4_13]	NSO	Green Rv	No occupancy or other surface disturbance will be allowed within 1/4 mile of the channel centerline of the Green River. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
	NSO	Devil's Kit	No occupancy or other surface disturbance will be allowed within 100 feet of the Devil's Kitchen petroglyphs. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
	NSO	Gunnison H	No occupancy or other surface disturbance will be allowed within 100 feet of the Gunnison Massacre Historic Site Marker. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
	NSO	Tabernacle	No occupancy or other surface disturbance will be allowed within 100 feet of the Tabernacle Hill Petroglyphs. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE LO_L2_4_17]	NSO	100Yr Fldp	No occupancy or other surface disturbance will be allowed within 100 year floodplains. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
	NSO	Hyway	No occupancy or other surface disturbance will be allowed within 2,500 feet north of the highway. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
	NSO	Lv Water	No occupancy or other surface disturbance will be allowed within 300 feet of

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			live water. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_4_2]	NSO	I-70 View	No occupancy or other surface disturbance will be allowed within view of I-70. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
	NSO	Dutch Hol	No occupancy or other surface disturbance will be allowed within 300 feet of Dutch Hollow Creek. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
	NSO	S Grouse St	No occupancy or other surface disturbance will be allowed within 300 feet of sage grouse strutting grounds. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
	NSO	Indian Crk	No occupancy or other surface disturbance will be allowed within 330 feet of Indian Creek. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE LO_L2_4_23]	NSO	Pern Strms	No occupancy or other surface disturbance will be allowed within 330 feet of the centerline or within the 100-year recurrence interval floodplain of perennial stream(s). This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE LO_L2_4_24] [CODE L2_4_24]	NSO	Water Bod	No occupancy or other surface disturbance will be allowed within 330 feet of the channel centerline of any water body. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_4_25]	NSO	Water	No occupancy or other surface disturbance will be allowed within 400 feet of the water body. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_4_26]	NSO	Water	No occupancy or other surface disturbance will be allowed within 400 feet of the water body. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
	NSO	Watercourse	No occupancy or other surface disturbance will be allowed within 400 yards of any stream, pond, or live watercourse. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
	NSO	Mudd Sprgs	No occupancy or other surface disturbance will be allowed within 500 feet of Mud Springs, unless activity is below an elevation of 6,420 feet. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
	NSO	D Tort W dn	No occupancy or other surface disturbance will be allowed within 500 feet of any desert tortoise winter dens. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE LO_L2_4_3]	NSO	Antelope Wt	No occupancy or other surface disturbance will be allowed within 0.25 miles of antelope water catchments. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
	NSO	Pern Strms	No occupancy or other surface disturbance will be allowed within 500 feet of any



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	NSO	Streams	perennial streams and springs. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management. No occupancy or other surface disturbance will be allowed within 500 feet of streams. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_4_32]	NSO	Ivie Crk	No occupancy or other surface disturbance will be allowed within 500 feet of the Ivie Creek. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE LO_L2_4_33]	NSO	Live Water	No occupancy or other surface disturbance will be allowed within 600 feet of live water. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
	NSO	Pern Strms	No occupancy or other surface disturbance will be allowed within 600 feet of perennial streams. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
	NSO	Streams	No occupancy or other surface disturbance will be allowed within 600 feet of springs, whether flowing or not. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_4_36]	NSO	Muddy Crk	No occupancy or other surface disturbance will be allowed within 660 feet of Muddy Creek. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
	NSO	Live Water	No occupancy or other surface disturbance will be allowed within 660 feet of live water. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE LO_L2_4_38] [CODE L2_4_38]	NSO	Streams	No occupancy or other surface disturbance will be allowed within 660 feet of springs, whether flowing or not. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_4_39]	NSO	Muddy Rv	No occupancy or other surface disturbance will be allowed within 1/4 mile of the centerline of the Muddy River. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE LO_L2_4_4]	NSO	Antelope Cor	No occupancy or other surface disturbance will be allowed within 0.3 miles of the antelope travel corridor. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_4_40]	NSO	CR Rec A	No occupancy or other surface disturbance will be allowed within the Canyon Rim's Recreation Area. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE LO_L2_4_41]	NSO	Wet/Fld	No occupancy or other surface disturbance will be allowed within 600 feet of wetland and floodplain environments. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE LO_L2_4_42]	NSO	Ripn/Wet	In order to protect riparian/wetland habitat and municipal and non-municipal watershed areas, no occupancy or other surface disturbance will be allowed within 1,200 feet of live water or within 1,200 feet of wetlands as defined by

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			USFWS in "Classification of Wetlands and Deep Water Habitats of the United States." This limitation does not apply to maintenance and operation of producing wells. If the lessee can demonstrate that operations can take place without impact to the resource being protected, an exemption to this stipulation may be granted, if approved in writing by the authorized officer in consultation with the district's watershed specialist. For example, exemptions may be allowed where the riparian zone or the hydrologic influence area of phreatophytes exists less than 1,200 feet from live water.
	NSO	S Grouse St	No occupancy or other surface disturbance will be allowed within 1,000 feet of sage grouse strutting grounds. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
	NSO	High Wtr	No occupancy or other surface disturbance will be allowed within 1,000 feet of the high water line. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
	NSO	Owl Spr	No occupancy or other surface disturbance will be allowed within 1,200 feet of Owl Springs. This distance may be modified when specifically approved in writing by the authorized officer.
	NSO	Live Water	No occupancy or other surface disturbance will be allowed within 1,200 feet of live water. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
	NSO	Highway	No occupancy or other surface disturbance will be allowed within 1,300 feet of the highway. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_5_1]	NSO	Airport	No drilling or storage facilities will be allowed within 1,000 feet of any runway or other airport facility. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_5_2]	NSO	Roadway	No drilling or storage facilities will be allowed within 1,320 feet (1/4 mile) of the roadway centerline, unless the activity is not visible. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
	NSO	Live Water	No drilling or storage facilities will be allowed within 300 feet of live water. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE LO_L2_5_4]	NSO	S Grouse St	No drilling or storage facilities will be allowed within 300 feet of sage grouse strutting grounds. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
	NSO	Fre Sev R	No drilling or storage facilities will be allowed within 500 feet of live water or the reservoirs located in the Fremont and Sevier River drainages and tributaries. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_5_6]	NSO	Live Water	No drilling or storage facilities will be allowed within 500 feet of live water resource areas. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.

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[CODE L2_5_7]	NSO	Streams	No drilling or storage facilities will be allowed within 500 feet of streams. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_5_8]	NSO	In Canyon	No drilling or storage facilities will be allowed within the inner canyon walls. This distance may be modified when specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE LO_L2_51_1] [CODE L2_51_1]	AB0123 AB0123	Watershed	In order to minimize watershed damage, exploration, drilling, and other development activity will be allowed only during the period from April 30 to November 1. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
	CSU	Col RV	- The lessee is informed that the floodplain portions of the lease area require special attention to prevent damage to surface resources and contamination to the Colorado River system. Any surface use within such areas will be strictly controlled or restricted where not essential for operations. Appropriate modifications to imposed restrictions will be made for maintenance and operations of producing oil and gas wells.
	CSU	Step Slopes	- Construction of access roads and drill pads on slopes in excess of 30 percent will require special design standards to minimize watershed damage. Drilling operations and any associated construction activities on slopes in excess of 50 percent may require directional drilling to prevent damage to the watershed. Exceptions to the limitations may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_6_1]	NSO	Slopes >50	No occupancy or other surface disturbance will be allowed on slopes in excess of 22.5 degrees or 50 percent, without written permission from the authorized officer of the Bureau of Land Management.
	NSO	Slopes>25	No occupancy or other surface disturbance will be allowed on slopes in excess of 25 percent, without written permission from the authorized officer of the Bureau of Land Management.
	NSO	Slopes>30	No occupancy or other surface disturbance will be allowed on slopes in excess of 30 percent, without written permission from the authorized officer of the Bureau of Land Management.
[CODE LO_L2_6_4] [CODE L2_6_4]	NSO	Slopes >40	No occupancy or other surface disturbance will be allowed on slopes in excess of 40 percent, without written permission from the authorized officer of the Bureau of Land Management.
[CODE L2_6_5]	NSO	Slopes >50	No occupancy or other surface disturbance will be allowed on slopes in excess of 50 percent, without written permission from the authorized officer of the Bureau of Land Management.
[CODE L2_67_1]	CSU	Sen Rec A	The lessee is informed that the lease is within a sensitive, high use recreation area, and will require special attention to prevent undue damage to the scenic and recreational values. Measures such as natural or artificial screening, painting of all production facilities to blend with the landscape, special

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			rehabilitation requirements, or other similar practices will be required as necessary by the Bureau of Land Management.
	_45 _45	Deer Mig	In order to protect the migration of deer along Monument Ridge, exploration, drilling, and other development activity will be allowed only during the period from June 1 to May 10. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE LO_L2_7_10] [CODE L2_7_10]	_45 _45	Antel Fwn	In order to protect antelope fawning, exploration, drilling, and other development activity will be allowed only during the period from June 16 to May 14 and this limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
	456 456	S Grouse St	In order to protect sage grouse strutting habitat, exploration, drilling, and other development activity will be allowed only during the period from July 01 to March 31. This limitation does not apply to maintenance and operation of producing wells. Exceptions of this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
	23 23	S Grouse Bd	In order to protect sage grouse strutting/breeding areas, exploration, drilling, and other development activity will be allowed only during the period from May 01 to February 28. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
	23 23	S Grouse Bd	In order to protect sage grouse strutting/breeding areas, exploration, drilling, and other development activity will be allowed only during the period from May 01 to March 14. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_7_103]	_23 _23	S Grouse Bd	In order to protect sage grouse strutting/breeding areas, exploration, drilling, and other development activity will be allowed only during the period from May 02 to March 14. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
	2345 2345	S Grouse Bd	In order to protect sage grouse strutting/breeding areas, exploration, drilling, and other development activity will be allowed only during the period from July 01 to February 28. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
	34 34	S Grouse N	In order to protect sage grouse strutting/nesting area, exploration, drilling, and other development activity will be allowed only during the period from

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[CODE_LO_L2_7_106]	_2345_ _2345_	S Grouse N	June 01 to April 01. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_7_107]	345_ 345_	S Grouse N	In order to protect sage grouse strutting/nesting area, exploration, drilling, and other development activity will be allowed only during the period from June 15 to March 15. This limitation does not apply to maintenance and operation of producing wells. Exceptions to the limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
	345 345	S Grouse N	In order to protect sage grouse strutting/nesting area, exploration, drilling, and other development activity will be allowed only during the period from June 30 to April 01. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
	345 345	S Grouse N	In order to protect sage grouse strutting/nesting area, exploration, drilling, and other development activity will be allowed only during the period from July 01 to March 31. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE LO_L2_7_111]	_45_ _45_	antel Fwn	In order to protect antelope fawning, exploration, drilling, and other development activity will be allowed only during the period from June 21 to May 14. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_7_110]	_23 _23	Se S Grouse	In order to protect seasonal sage grouse breeding areas, exploration, drilling, and other development activity will be allowed only during the period from May 02 to March 14. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE LO_L2_7_111]	_6789AB012 _6789AB012	Sea Wildlf Ha	In order to protect seasonal wildlife habitat, exploration, drilling, and other development activity will be allowed only during the period from April 01 to July 15. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.

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	B012 B012	Sea Wildlf Ha	In order to protect seasonal wildlife habitat, exploration, drilling, and other development activity will be allowed only during the period from April 01 to November 30. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the Bureau of Land Management.
	_B0123_ _B0123_	Sea Wildlf Ha	In order to protect seasonal wildlife habitat, exploration, drilling, and other development activity will be allowed only during the period from April 15 to December 15. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
	_B01234_ _B01234_	Sea Wildlf Ha	In order to protect seasonal wildlife habitat, exploration, drilling, and other development activity will be allowed only during the period from May 01 to December 15. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
	_B01234_ _B01234_	Sea Wildlf Ha	In order to protect seasonal wildlife habitat, exploration, drilling, and other development activity will be allowed only during the period from May 12 to December 15. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_7_116]	_B01234_ _B01234_	Sea Wildlf Ha	In order to protect seasonal wildlife habitat, exploration, drilling, and other development activity will be allowed only during the period from May 15 to December 15. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_7_117]	_9AB01234_ _9AB01234_	Sea Wildlf Ha	In order to protect seasonal wildlife habitat, exploration, drilling, and other development activity will be allowed only during the period from May 16 to October 31. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
	B012345_ B012345_	Sea Wildlf H	In order to protect seasonal wildlife habitat, exploration, drilling, and other development activity will be allowed only during the period from June 15 to December 01. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_7_119]	B012345_	Sea Wildlf H	In order to protect seasonal wildlife habitat, exploration, drilling, and other development activity will be allowed only during the period from June 16 to November 30. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
	456	Antel Fwn	In order to protect antelope fawning, exploration, drilling, and other development activity will be allowed only during the period from August 01 to April 30. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically

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[CODE L2_7_120]	B012345_	Sea Wildlf H	approved in writing by the authorized officer of the Bureau of Land Management. In order to protect seasonal wildlife habitat, exploration, drilling, and other development activity will be allowed only during the period from June 16 to November 30. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE LO_L2_7_121]	3456_ 3456_	Sea Wildlf Ha	In order to protect seasonal wildlife habitat, exploration, drilling, and other development activity will be allowed only during the period from July 16 to March 31. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
	_456_ _456_	Sea Wildlf Ha	In order to protect seasonal wildlife habitat, exploration, drilling, and other development activity will be allowed only during the period from July 20 to May 15. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
	5	Clr Lk Wf Bf	In order to protect the Clear Lake Waterfowl Buffer Strip, exploration, drilling, and other development activity will be allowed only during the period from June 01 to April 30. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
	AB0123	Wat Fow Ha	In order to protect waterfowl habitat, exploration, drilling, and other development activity will be allowed only during the period from May 01 to October 31. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management. In order to protect waterfowl habitat, exploration, drilling, and other development activity will be allowed only during the period from July 01 to April 30. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management. In order to protect waterfowl habitat, exploration, drilling, and other development activity will be allowed only during the period from July 16 to March 16. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management. In order to protect waterfowl habitat, exploration, drilling, and other development activity will be allowed only during the period from July 16 to March 31. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management. In order to protect waterfowl habitat, exploration, drilling, and other development activity will be allowed only during the period from July 17 to

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	B012	Wildlf Wn Rg	<p>March 31. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management. In order to protect wildlife winter range, exploration, drilling, and other development activity will be allowed only during the period from April 01 to November 30. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management. In order to protect antelope habitat, exploration, drilling, and other development activity will be allowed only during the period from May 01 to November 1. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management. In order to protect wildlife winter range, exploration, drilling, and other development activity will be allowed only during the period from July 01 to January 31. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management. In order to protect crucial raptor nesting sites, exploration, drilling, and other development activity within 0.5 mile radius of the sites will be allowed from July 16 to February 28. This limitation does not apply to maintenance and limitation does not apply to maintenance and operation of producing wells.</p>
[CODE L2_7_13]	AB0123	Antel Hab	
[CODE LO_L2_7_131]	23456_	Rapt Nest	
	CSU	VRM II	<p>Specific exceptions may be granted by the BLM if the proposed activity will not seriously disturb wildlife habitat values being protected. This determination will be made by a BLM wildlife biologist in coordination with the UDWR and, if appropriate, the USFWS. Such a determination may be made if raptor nest in question is not active at the time of proposed activity. Quite often raptors will have alternate nesting sites available. If a raptor pair is using such an alternative site, it would be necessary to protect the inactive nest from disturbing activities for fluid mineral leasing and exploration. However, it should be noted that all eagle nests, active or inactive, are protected by the Eagle Act and must be left intact and cannot be removed from their original location.</p> <p>In order to protect visual resources in VRM Class II and III areas, activities in these areas will be located and designed in a way to meet Class II and III management criteria. This limitation does not apply to maintenance and operation of producing wells. If the lessee can demonstrate that operations can take place without impact to the resource being protected, an exemption to this stipulation may be granted, if approved in writing by the authorized officer, if approved in writing by the authorized officer in consultation with the District's VRM specialist. For Class II areas exemptions may be granted whereby changes due to the proposed action repeat the basic elements of form, line, color, and texture found in the predominant natural features of the</p>



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[CODE LO_L2_7_133]	B0123_ B0123_	M Dr Wn Rg	<p>characteristic landscape. For Class III areas, exemptions may be granted whereby changes due to the proposed action repeat the basic elements found in the predominant natural features of the characteristic landscape. This may be achieved through reclamation, topographic or vegetative screening, construction practices and use of non-reflective paints which blend into the the viewscape for buildings, tanks, and pipelines.</p> <p>In order to protect crucial mule deer winter range, exploration, drilling, and other development activity will be allowed only from April 16 to November 30. This limitation does not apply to maintenance and operation of producing wells.</p> <p>Specific exceptions may be granted by BLM if the proposed activity will not seriously disturb wildlife habitat values being protected. This determination will be made by a BLM wildlife biologist in coordination with the UDWR and, if appropriate, the USFWS. Such a determination may result if unseasonably warm weather accounts for the lack of use of mule deer present on the traditional winter range would allow for such disturbing activities for fluid mineral leasing and exploration.</p> <p>In order to protect crucial mule deer fawning areas, exploration, drilling, and other development activity will be allowed only from August 1 to April 14. This limitation does not apply to maintenance and operation of producing wells. Specific exceptions may be granted by the BLM if the proposed activity will not seriously disturb wildlife habitat values being protected. This determination will be made by a BLM wildlife biologist in coordination with the UDWR and, if appropriate, the USFS. Such a determination may result if fawning is completed early and the fawning area is abandoned earlier to allow for disturbing activities for fluid mineral leasing and exploration to start earlier than July 31.</p>
	B0123 B0123	Cr Elk WR	<p>In order to protect crucial elk winter range, exploration, drilling, and other development activity will be allowed only from May 1 to November 30. This limitation does not apply to maintenance and operation of producing wells. Specific exceptions may be granted by the BLM if the proposed activity will not seriously disturb wildlife habitat values being protected. This determination will be made by a BLM wildlife biologist in coordination with the UDWR, and if appropriate, the USFWS. Such a determination may result if unseasonably warm weather accounts for the lack of use of elk winter range. Therefore, the lack of elk present on the traditional winter range would allow for such disturbing activities for fluid mineral leasing and exploration.</p>
[CODE LO_L2_7_136]	_2345_ _2345_	S Grouse Br	<p>In order to protect crucial sage grouse breeding complexes, exploration, drilling, and other development activity within 0.5 mile radius of the will be allowed from June 16 to March 14. This limitation does not apply to maintenance and operation of producing wells.</p> <p>Specific exceptions may be granted by the BLM if the proposed activity will not seriously disturb wildlife habitat values being protected. This determination</p>

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will be made by a BLM wildlife biologist in coordination with the UDWR and, if appropriate, the USFWS. Such a determination may result if the sage grouse complex remained inactive over a period of years and it is determined by the BLM and DWR that the population no longer used the complex and no longer requires protection from disturbing activities for fluid mineral leasing and exploration.

In order to protect crucial elk calving areas, exploration, drilling, and other development activity will be allowed only from July 1 to April 30. This limitation does not apply to maintenance and operation of producing wells. Specific exceptions may be granted by the BLM if the proposed activity will not seriously disturb wildlife habitat values being protected. This determination will be made by a BLM wildlife biologist in coordination with the UDWR and, if appropriate, the USFWS. Such a determination may result if calving is completed early and the calving area is abandoned earlier to allow for disturbing activities for fluid mineral leasing and exploration to start earlier than June 30.

In order to protect bald eagle roost sites, exploration, drilling, and other development activity within .5 mile radius of the sites will be allowed only from March 16 to November 14. This limitation does not apply to maintenance operation of producing wells. Specific exceptions may be granted by the BLM if the proposed activity will not seriously disturb wildlife habitat values being protected. This determination will be made by a BLM wildlife biologist in coordination with the UDWR and the USFWS. Such a determination may result if the roost site no longer exists or other roost sites are found to have taken over in importance to the bald eagles present to allow for disturbing activities for fluid mineral leasing and exploration.

In order to protect crucial antelope fawning areas, exploration, drilling, and other development activity will be allowed only from July 2 to April 14. This limitation does not apply to maintenance and operation of producing wells. Specific exceptions may be granted by the BLM if the proposed activity will not seriously disturb wildlife habitat values being protected. This determination will be made by a BLM wildlife biologist in coordination with the UDWR and, if appropriate, the USFWS. Such a determination may result if fawning is completed early and the fawning area is abandoned earlier to allow for disturbing activities for fluid mineral leasing and exploration to start earlier than July 1.

[CODE L2\_7\_14] AB01 BE Hab

In order to protect bald eagle habitat, exploration, drilling, and other development activity will be allowed only during the period from March 01 to October 31. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.

[CODE L2\_7\_15] AB0123 BE Hab

In order to protect bald eagle habitat, exploration, drilling, and development activity will be allowed only during the period from May 01 to October 31. This limitation does not apply to maintenance and operation of producing wells.

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			<p>Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management. In order to protect bald eagle roosting sites, exploration, drilling, and other development activity will be allowed only during the period from April 01 to September 30. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.</p> <p>In order to protect bald eagle roosting sites, exploration, drilling, and other development activity will be allowed only during the period from April 01 to October 31. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.</p> <p>In order to protect bald eagle roosting sites, exploration, drilling, and other development activity will be allowed only during the period from May 01 to October 31. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.</p>
[CODE LO_L2_7_19]	TL AB0123	B Game	<p>In order to protect big game seasonal wildlife habitat, exploration, drilling, and other development activity will be allowed only during the period from April 30 to November 01. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.</p>
	TL 9AB01234	McCook Rd	<p>In order to protect the biannual migration of deer on McCook Ridge and to protect the crucial deer and elk habitat, exploration, drilling, and other development activity will be allowed only during the period from June 01 to October 01. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.</p>
	45"	BH Shp Lm	<p>In order to protect lambing bighorn sheep, exploration, drilling, and other development activity will be allowed only during the period from June 16 to April 30. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.</p> <p>In order to protect bison and deer winter range, exploration, drilling, and other development activity will be allowed only during the period from May 16 to October 31. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.</p> <p>In order to protect critical watershed area, exploration, drilling, and other development activity will be allowed only during the period from June 16 to April 30. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically</p>

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	TL _2345	Clv & Dr Fwn	approved in writing by the authorized officer of the Bureau of Land Management. In order to protect crucial calving and deer fawning habitat, and sage grouse strutting grounds, exploration, drilling, and other development activity will be allowed only during the period from June 30 to March 15. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
	TL _2345	Ek&Dr Fwn	In order to protect crucial elk calving and deer fawning habitat, exploration, drilling, and other development activity will be allowed only during the period from June 30 to May 15. This limitation does not apply to maintenance and operations of producing wells. Exceptions to this limitation in any year may specifically approved in writing by the authorized officer of the Bureau of Land Management. In order to protect crucial pronghorn antelope fawning areas, exploration, drilling, and other development activity will be allowed only during the period from August 01 to April 30. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_7_26]	23	SG Bred Ar	In order to protect crucial sage grouse strutting/breeding areas, exploration, drilling, and other development activity will be allowed only during the period from May 01 to February 28. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management. In order to protect deer winter range, exploration, drilling, and other development activity will be allowed only during the period from April 01 to November 01. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_7_28]	B012	Dr Wn Rg	In order to protect deer winter range, exploration, drilling, and other development activity will be allowed only during the period from April 01 to November 30. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_7_29]	AB0123_	Dr Wn Rg	In order to protect deer winter range, exploration, drilling, and other development activity will be allowed only during the period from April 15 to October 31. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management. In order to minimize watershed damage, exploration, drilling, and other development activity will be allowed only during the period from April 30 to June 01. This limitation does not apply to maintenance and operation of

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			producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management. In order to protect deer winter range, exploration, drilling, and other development activity will be allowed only during the period from April 15 to November 15. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
	AB0123_	Dr Wn Rg	In order to protect deer winter range, exploration, drilling, and other development activity will be allowed only during the period from April 16 to October 31. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management. In order to protect deer winter range, exploration, drilling, and other development activity will be allowed only during the period from April 30 to December 01. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management. In order to protect deer winter range, exploration, drilling, and other development activity will be allowed only during the period from May 01 to June 01. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_7_34]	AB0123	Dr Wn Rg	In order to protect deer winter range, exploration, drilling, and other development activity will be allowed only during the period from May 01 to October 31. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_7_35]	B0123	Dr Wn Rg	In order to protect deer winter range, exploration, drilling, and other development activity will be allowed only during the period from May 01 to November 30. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_7_36]	B0123	Dr Wn Rg	In order to protect deer winter range, exploration, drilling, and other development activity will be allowed only during the period from May 01 to November 30. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_7_37]	0123	Dr Wn Rg	In order to protect deer winter range, exploration, drilling, and other development activity will be allowed only during the period from May 01 to December 30. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_7_38]	0123	Dr Wn Rg	In order to protect deer winter range, exploration, drilling, and other development activity will be allowed only during the period from May 01 to

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	TL AB0123	Watershed	<p>December 31. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management. In order to protect deer winter range, exploration, drilling, and other development activity will be allowed only during the period from May 02 to March 14. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management. In order to minimize watershed damage, exploration, drilling, and other development activity will be allowed only during the period from April 30 to November 01. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management. In order to protect deer winter range, exploration, drilling, and other development activity will be allowed only during the period from May 02 to November 30. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management.</p>
{CODE L2_7_41}	AB01234_	Dr Wn Rg	<p>In order to protect deer winter range, exploration, drilling, and other development activity will be allowed only during the period from May 16 to October 30. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.</p>
[CODE L2_7_42]	AB01234_ AB01234_	Deer WR	<p>In order to protect deer winter range, exploration, drilling, and other development activity will be allowed only during the period from May 16 to October 31. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management. The BLM is authorized to waive, modify, or have mitigation measures enforced by the authorized officer of the Bureau of Land Management.</p>
			<p>Now is the time to implement the stipulations that have been in full\</p>
[CODE L2_7_43]	_AB01234_ _AB01234_	Deer WR	<p>In order to protect deer winter range, exploration, drilling, and other development activity will be allowed only during the period from May 16 to November 14. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management. In order to protect deer winter range, exploration, drilling, and other development activity will be allowed only during the period from May 30 to November 30. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.</p>
[CODE LO_L2_7_45]	45_	Deer WR	<p>In order to protect deer winter range, exploration, drilling, and other</p>

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[CODE L2_7_45]	AB01234_ AB01234_	Dr/Elk WR	development activity will be allowed only during the period from June 16 to April 30. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management. In order to protect deer winter range, exploration, drilling, and other development activity will be allowed only during the period from June 30 to February 01. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management. In order to protect deer winter range/elk high priority range, exploration, drilling, and other development activity will be allowed only during the period from May 16 to October 31. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
	AB01234_ AB01234_	Dr/Mse Hab	In order to protect deer/moose habitat area, exploration, drilling, and other development activity will be allowed only during the period from May 16 to October 31. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_7_49]	45_	DBH Sh Hab	In order to protect desert bighorn sheep habitat, exploration, drilling, and other development activity will be allowed only during the period from June 16 to April 30. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
	AB0123	Watershed	In order to minimize watershed damage, exploration, drilling, and other development activity will be allowed only during the period from May 01 to October 30. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
	_9AB012345	DBH Sh Hab	In order to protect desert bighorn sheep habitat, exploration, drilling, and other development activity will be allowed only during the period from July 01 to October 15. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_7_51]	34567890AB_	DBH Sh Hab	In order to protect desert bighorn sheep habitat, exploration, drilling, and other development activity will be allowed only during the period from December 15 to April 01. This limitation does not apply to maintenance and operations of producing wells. Exceptions to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management. In order to protect desert tortoise habitat during their active period, exploration, drilling, and other development activity will be allowed only during the period from October 01 to March 01. This limitation does not apply

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			to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
			In order to protect elk and calving summer range, exploration, drilling, and other development activity will be allowed only during the period from December 01 to April 30. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be approved in writing by the authorized officer of the Bureau of Land Management.
			In order to protect elk calving summer range, exploration, drilling, and other development activity will be allowed only during the period from December 01 to April 30. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE LO_L2_7_55]	AB01234_	Elk Dr Wn Rg	In order to protect elk and deer winter range, exploration, drilling, and other development activity will be allowed only during the period from May 16 to October 31. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_7_55]			In order to protect elk calving, exploration, drilling, and other development activity will be allowed only during the period from July 01 to April 30. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_7_57]	0123	Elk Hab	In order to protect elk habitat, exploration, drilling, and other development activity will be allowed only during the period from May 01 to December 30. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_7_58]	0123	Elk Hab	In order to protect elk habitat, exploration, drilling, and other development activity will be allowed only during the period from May 01 to December 31. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
			In order to protect elk habitat, exploration, drilling, and other development activity will be allowed only during the period from July 16 to November 30. This limitation does not apply to maintenance and operation of producing wells. Exceptions to the limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE LO_L2_7_6]	TL AB0123	Watershed	In order to minimize watershed damage, exploration, drilling, and other development activity will be allowed only during the period from May 01 to October 31. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
	TL	Elk WR	In order to protect elk winter range, exploration, drilling, and other



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	AB012		development activity will be allowed only during the period from April 01 to November 01. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management. In order to protect elk winter range, exploration, drilling, and other development activity will be allowed only during the period from May 01 to November 30. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management. In order to protect elk winter range, exploration, drilling, and other development activity will be allowed only during the period from May 02 to November 30. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management. In order to protect elk winter range, exploration, drilling, and other development activity will be allowed only during the period from May 10 to November 30. This limitation does not apply to maintenance and operation of producing wells. Exceptions of this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
	AB01234_ AB01234_	Elk WR	In order to protect elk winter range, exploration, drilling, and other development activity will be allowed only during the period from May 16 to October 31. This limitation does not apply to maintenance and operation of producing wells. Exceptions of this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_7_65]	23456	GE Hab	In order to protect golden eagle habitat, exploration, drilling, and other development activity will be allowed only during the period from July 02 to February 28. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_7_66]	56	GE Hab	In order to protect golden eagle habitat, exploration, drilling, and other development activity will be allowed only during the period from July 02 to April 30. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_7_67]	AB0123	BE Hab	In order to protect important seasonal bald eagle winter habitat, exploration, drilling, and other development activity will be allowed only during the period from May 01 to October 31. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
	AB01234_ AB01234_	Moose WR	In order to protect moose winter range, exploration, drilling, and other development activity will be allowed only during the period from May 16 to October 31. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically

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			approved in writing by the authorized officer of the Bureau of Land Management. In order to protect mule deer habitat, exploration, drilling, and other development activity will be allowed only during the period from May 01 to October 31. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
	AB01234 AB01234	Watershed	In order to minimize watershed damage, exploration, drilling, and other development activity will be allowed only during the period from June 01 to November 01. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_7_70]	0123	M Dr Hab	In order to protect mule deer habitat, exploration, drilling, and other development activity will be allowed only during the period from May 01 to December 30. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
	TL _1234	G Eagles N	In order to protect mule deer habitat, exploration, drilling, and other development activity will be allowed only during the period from December 01 to March 30. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
	TL AB012_	Raptor N	In order to protect nesting golden eagles, exploration, drilling, and other development activity will be allowed only during the period from June 02 to February 14. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
			In order to protect raptor areas, exploration, drilling, and other development activity will be allowed only during the period from May 01 to November 30. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
			In order to protect raptor habitat/nesting area, exploration, drilling, and other development activity will be allowed only during the period from July 01 to February 28. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
			In order to protect raptor habitat/nesting area, exploration, drilling, and other development activity will be allowed only during the period from March 15 to November 01. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_7_76]	B0123	Rap Hab-Nes	In order to protect raptor habitat/nesting area, exploration, drilling, and other development activity will be allowed only during the period from May 01

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			to November 30. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
	234_	Rap Hab-Nes	In order to protect raptor habitat/nesting area, exploration, drilling, and other development activity will be allowed only during the period from May 02 to March 14. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE LO_L2_7_79]	TL _12345_	Raptor N	In order to protect raptor habitat/nesting area, exploration, drilling, and other development activity will be allowed only during the period from May 15 to March 01. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_7_8]	B01234	Watershd	In order to protect raptor habitat/nesting area, exploration, drilling, and other development activity will be allowed only during the period from June 16 to February 14. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
			In order to minimize watershed damage, exploration, drilling, and other development activity will be allowed only during the period from June 01 to November 30. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
			In order to protect raptor habitat/nesting area, exploration, drilling, and other development activity will be allowed only during the period from July 01 to February 14. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
			In order to protect raptor habitat/nesting area, exploration, drilling, and other development activity will be allowed only during the period from July 01 to February 28. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
			In order to protect raptor habitat/nesting area, exploration, drilling, and other development activity will be allowed only during the period from July 01 to April 03. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
			In order to protect raptor habitat/nesting area, exploration, drilling, and other development activity will be allowed only during the period from July 01

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[CODE L2_7_84]	23456	Rap Hab-Nes	to April 30. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management. In order to protect raptor habitat/nesting area, exploration, drilling, and other development activity will be allowed only during the period from August 01 to February 28. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_7_85]	_23	S Grouse	In order to protect sage grouse habitat, exploration, drilling, and other development activity will be allowed only during the period from May 02 to March 14. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_7_87]	3456_	S Grouse	In order to protect sage grouse habitat, exploration, drilling, and other development activity will be allowed only during the period from May 15 to March 01. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
	TL 345_	S Grouse	In order to protect sage grouse habitat, exploration, drilling, and other development activity will be allowed only during the period from June 15 to April 01. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
	AB0123 AB0123	Watershed	In order to protect sage grouse strutting grounds, exploration, drilling and other development activity will be allowed no closer than 1/2 mile to strutting grounds from March 15 to April 30. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
[CODE L2_7_90]	_56789AB012_	Sg Grse Str	In order to minimize watershed damage, exploration, drilling, and other development activity will be allowed only during the period from November 01 to April 30. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.
			In order to protect sage grouse strutting habitat, exploration, drilling, and other development activity will be allowed only during the period from March 15 to June 15. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically

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[CODE L2_7_92]	_23	Sg Grse Str	<p>approved in writing by the authorized officer of the Bureau of Land Management. In order to protect sage grouse strutting habitat, exploration, drilling, and other development activity will be allowed only during the period from May 02 to February 14. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.</p> <p>In order to protect sage grouse strutting habitat, exploration, drilling, and other development activity will be allowed only during the period from May 02 to March 14. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.</p> <p>In order to protect sage grouse strutting habitat, exploration, drilling, and other development activity will be allowed only during the period from May 15 to March 01. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.</p> <p>In order to protect sage grouse strutting habitat, exploration, drilling, and other development activity will be allowed only during the period from May 15 to March 15. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.</p> <p>In order to protect sage grouse strutting habitat, exploration, drilling, and other development activity will be allowed only during the period from May 16 to April 30. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.</p>
[CODE L2_7_96]	_2345_	Sg Grse Str	<p>In order to protect sage grouse strutting habitat, exploration, drilling, and other development activity will be allowed only during the period from June 15 to March 15. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.</p> <p>In order to protect sage grouse strutting habitat, exploration, drilling, and other development activity will be allowed only during the period from June 16 to February 28. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.</p> <p>In order to protect sage grouse strutting habitat, exploration, drilling, and other development activity will be allowed only during the period from June 16 to March 31. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management.</p> <p>In order to protect sage grouse strutting habitat, exploration, drilling, and other development activity will be allowed only during the period from June 30</p>

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[CODE L2_8_1]	NSO	Watershed	to April 01. This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the Bureau of Land Management. In order to minimize watershed damage, during muddy and/or wet periods, the authorized officer of the Bureau of Land Management may prohibit exploration, drilling, or other development. This limitation does not apply to maintenance and operation of producing wells.
[CODE LO_L3_0_1] [CODE LO_L3_0_2]	NSO CSU	Dinosaur Q Dinosaur Q	No occupancy or other activity on the surface is allowed under this lease. A portion of the lease area is within the Cleveland-Lloyd Dinosaur Quarry Buffer Zone. Any surface use or occupancy within these areas will be strictly controlled through close scrutiny of any surface use plan filed to protect paleontological values and the enjoyment of visitors to the quarry. Options held by the federal government include relocation of proposed wells and access road, coring of the upper portion of the drill hole or other measures deemed necessary by the authorized officer of the Bureau of Land Management.
[CODE L4_0_1]	NAA	Leases	CLOSED TO LEASING test test test test test

Additional stipulation maps received by Moab and Price BLM field offices:

MOAB1	No leasing
FL1	No leasing

# Manti La Sal National Forest

**SUMMARY OF  
OIL AND GAS LEASING DIRECTION  
LAND AND RESOURCE MANAGEMENT PLAN  
MANTI-LA SAL NATIONAL FOREST**

**FORESTWIDE DIRECTION/STIPULATIONS**

MINERALS MANAGEMENT LEASABLES (GO2 to 07), 01, Page 111-35 of Amended Forest Plan

- a. Any lease, license or permit may be denied or limited by standard or other stipulations where proposed activities could result in irreparable damage, may preclude existing uses or be contrary to management direction. The following areas would not be administratively available for oil and gas leasing (Plate 3, Oil and Gas Leasing Map, Alternative III (Modified Forest Plan)).
- (1) The Peavine Corridor SPR Management Unit.
  - (2) The La Sal Peaks Oil and Gas Analysis Area.
  - (3) The major peaks and passes of the Abajo Mountains.
  - (4) That portion of the Sinbad Ridge/Sewemup Mesa area that extends north of Salt Creek and Garvey Gulch adjacent to the Sewemup Wilderness Study Area.
  - (5) High density/low disturbance cultural resource areas in the San Juan Analysis Area.
  - (6) Research Natural Areas (RNA).
- b. Stipulations (Uniform Format for Oil and Gas Lease Stipulations, Rocky Mountain Regional Coordinating Committee, March 1989) will be used in oil and gas leases as appropriate (ROD, Page A-5). Plate 3 (Alternative III Stipulation Map) shows stipulations and where they would be applied. Criteria under which waivers, exceptions, or modifications could be considered are identified in italics. Where no criteria are identified the stipulations would be considered to be rigid.

The following stipulations will be applied to each lease on a Forest wide basis:

- (1) Stipulation for Lands of the National Forest System Under Jurisdiction of the Department of Agriculture
- (2) The following No Surface Occupancy (NSO) Stipulation would be applied to all oil and gas leases:



- [CODE MLS8] Slope is greater than 35%. *Could be excepted if it is determined that erosion and sediment yield can be controlled, reclamation would be consistent with Forest Plan goals, land instability would not be induced, and visual quality objectives could be met. This would occur most often for roads.*
- *Geologic or erosion hazard rating is high. Could be excepted if it is demonstrated that operations would not cause instability or the site can be stabilized.*
- *Within 200 ft. from arterial and collector roads. Could be excepted if it can be demonstrated that operations would adequately provide for public safety, would not damage or interfere with the Forest Transportation System, and would be consistent with visual quality objectives.*
- *Within 200 feet of riparian areas. It is not intended to prohibit perpendicular crossings of riparian areas by roads if it is determined that riparian areas can be replaced after completion of operations. Could be excepted if it is determined that riparian areas can be replaced upon reclamation and disturbance would be consistent with other Forest Plan goals.*
- *Within Retention and Preservation Visual Quality Objective Areas. Could be excepted if it is determined that operations could be adequately screened from view and would meet the visual quality objective.*
- [CODE MLS13] Sage Grouse Leks, Nesting, and Brooding Areas.

[CODE MLS14, MLS\_TL2] (3) This Timing Limitation Stipulation (TL2) is used on all leases to prevent surface occupancy for construction of facilities and drilling from May 1 to July 5. The purpose of this stipulation is to protect elk during the calving season and protected raptors/migratory birds during the nesting season. This stipulation can be adjusted by up to 7 days at each end of the season without

a lease modification. *Could be excepted if it is determined that the project area is not a traditional elk calving area or is not being used due to seasonal variations.*

### **SITE-SPECIFIC DIRECTION/STIPULATIONS**

Stipulations would be applied to leases in specific areas to protect resources or mitigate impacts. Site-specific stipulations are used on areas available for leasing as follows:

(1) No Surface Occupancy Stipulation in the following areas:

- DRS (Developed Recreation Sites)  
Management Units
- [CODE MLS16] Huntington Canyon UDM (Undeveloped Motorized Recreation) Management Unit. This stipulation would not prohibit project roads from being constructed from State Highway 31 to adjacent areas.
- Sage Grouse Leks, Nesting, and Brooding Areas.
- [CODE MLS18] SPR (Semiprimitive Recreation)  
Management Units High-Use Areas (see Oil and Gas Leasing EIS, Plate 3).
- [CODE MLS19] SLD (Special Land Designation)  
Management Units. *Could be accepted if operations would not conflict with administration.*
- [CODE MLS20] RPI (Research Protection and Interpretation)  
Management Units. *Would be waived if RPI areas are studied and are not designated. As Research Natural Areas (RNA).*
- [CODE MLS21] MWS (Municipal Water Supply)  
Management Units.

- [CODE MLS22] WPE (Watershed Protection and Improvement)  
Management units within MWS Management Units.
  - Retention and Preservation Visual Quality Objective Area. *Could be excepted if it is determined that operations could be adequately screened from view and would meet the visual quality objective.*
- (2) Timing Limitation Stipulation (TL1) would be used to prevent surface occupancy for construction of facilities and drilling in the following areas:
- [CODE MLS24] GWR (General Big Game Winter Range) and  
KWR (Key Winter Range) Management Units. Surface occupancy for construction of facilities and drilling would not be allowed from December 1 to April 15 to protect elk and deer in their general winter habitat. These dates can be adjusted by up to 7 days at each end without lease modification. *Could be excepted if winter range is not being used.*
- (3) Controlled Surface Use Stipulation (CSU) would be applied to the following areas as described below:
- [CODE MLS25] GWR (General Big Game Winter Range) Management Units. Surface disturbance (including animal behavioral avoidance) is limited to 10% of any GWR unit (CSU2). *Could be excepted if adjacent habitat is enhanced, increasing GWR or KWR habitat in or adjacent to the unit disturbed.*
  - [CODE MLS26] KWR (Key Big Game Winter Range) Management Units. Surface disturbance (including animal behavioral avoidance) is limited to 1% of any KWR unit (CSU2). *Could be excepted if adjacent habitat is enhanced, increasing KWR habitat in the unit being disturbed.*

- [CODE MLS27] SPR (Semiprimitive Recreation)  
Management Units, Low-Use Areas (see Plate 3). Only essential facilities allowed (CSU1).

(4) All Other Areas - Standard Terms and Forestwide Stipulations Only. Standard terms would allow moving sites up to 200 meters (660 feet) and delaying operations up to 60 days in any lease year. All operations would be required to be consistent with non-discretionary laws.

Additional stipulation maps provided by the office include:

[CODE MAN1]	CSU (Undifferentiated)
[CODE ML_CSU_8]	CSU (Undifferentiated)
[CODE ML_NSO_20]	NSO (Undifferentiated)
[CODE MLS28]	Production and Forage
[CODE MLS29]	Wood Fiber Production and Harvest
[CODE MLS30]	Leasable Mineral Management
[CODE MLS31]	Dark Canyon Wilderness
[CODE MLS32]	Utility Corridor
[CODE MLS33]	Discretionary No Lease

Routt Medicine Bow National Forests,  
Routt National Forests

<b>Stipulation</b>	<b>Area/Resource to be Protected</b>
<b>NSO Stipulation</b> [CODE RT_3]	Heritage Resource Areas over 40 acres Developed Recreation Sites High Erosion Hazard Soils High Geologic Hazard Slopes over 60% Bear River Corridor Eligible Wild and Scenic River Research Natural Area Backcountry Nonmotorized and Motorized Recreation Municipal Watersheds
<b>Timing Stipulation</b> [CODE RT_4]	Wildlife - Grouse Production Area Wildlife - Big Game Winter Range Wildlife - Big Game Birthing Area Known Active Raptor Nests
<b>CSU Stipulation</b> [CODE RT_1]	Slopes 40 - 60% [CODE RT_9] Erosive and Hydric (wet) Soils Alpine Environments Visual Resources Sensitive Watersheds Developed Recreation Sites Cutthroat Trout Habitat Shorty/Cataract Unique Natural Area Special Interest Areas Residential Interface
<b>Lease Notice</b>	Special Uses Threatened and Endangered Species Vegetation (active/planned timber sales)
<b>Standard Lease Terms</b>	Air Heritage Resources under 40 acres Range Vegetation Special-Uses

Resource: Soils/Slopes

Stipulation: NSO for areas with slopes 60 percent or greater and high erosion or geological hazard. [CODE RT\_10]

Zones Found: 1, 2, 3, and 4.

Justification: This stipulation is needed for the basic protection of soil and water resources. Soil disturbance for well pad development in these locations is very difficult to reclaim and results in unacceptable soil loss. This disturbance may also adversely affect slope stability and increase the potential for mass movements.

The less restrictive stipulations of CSU and timing are not applicable. The CSU stipulation is for operational guidance; use and occupancy is allowed. The timing stipulation prohibits use during specified time period. In this case, the protection is required year-round and is only achieved with NSO.

Application Methodology: Applying this stipulation to specific lands is very basic, using quad maps, aerial photos, and field verification. It is one of the first criteria looked at when processing a lease. Rarely will an entire lease be NSO for soils/slope concerns. The resource quad maps in the planning record will be used for locating soils and slope NSO stipulations where they exist in areas over 40 acres. Where these criteria exist in areas less than 40 acres, standard lease terms will provide the Forest Service with the authority needed to prohibit surface occupancy on those areas.

Conditions for WEMs: Waivers, exceptions, or modifications would rarely be granted in these situations, as steep slopes are a fixed condition over the life of a lease. In the event that too broad an area was stipulated and the operator found an acceptable location of less than 60 percent at APD stage, an exception would be feasible.

Resource: Soils/Slopes

Stipulation: CSU for areas 40-60 percent slopes, moderate erosion or geologic hazard and hydric soils. [CODE RT\_9]

Zones Found: 1, 2, 3 and 4

Justification: The CSU stipulation is needed in these areas because strict environmental controls are necessary to prevent adverse environmental consequences. Surface occupancy will be allowed, but the manner in which development activities will be permitted will be more restricted than standard lease terms would permit.

Application methodology: Applying this stipulation to specific lands is very basic, using quad maps, aerial photos, and field verification. It is one of the first criteria looked at when processing a lease. Rarely will an entire lease be CSU for soils/slope concerns.

The resource quad maps in the planning record will be used for locating soils and slope NSO stipulations where they exist in areas over 40 acres. Where these criteria exist in areas less than 40 acres, standard lease terms will be enforced, and controlled surface use will be allowed.

Conditions for WEMs: This is the same as NSO soil/slope stipulation described previously.

Resource: Alpine Environments

Stipulation: CSU

Zones Found: 2 and 3

Justification: The CSU stipulation is needed in these sensitive ecosystems due to the limited revegetation potential. The CSU stipulation will be used to require any revegetation technique needed to ensure revegetation in these environments. It will also allow for site relocation beyond that which is permitted in the standard lease terms.

Application Methods: Soil mapping units were used to identify the alpine areas. Some of the alpine environments in the analysis areas fall within a 60 or greater slope class and are NSO because of that criteria. Approximately 4,500 acres of alpine lands will be covered by this CSU stipulation.

Condition for WEMs: Waivers, exceptions and modifications are not expected in the alpine environments. If the operator demonstrates that the values can be maintained and that revegetation can be accomplished, and this is confirmed through Forest Service analysis, an exception may be feasible.

Resource: Developed Recreation Sites (campgrounds, picnic areas, trail heads)

Stipulation: NSO for 1/4 mile around sites ( CSU for 1/4 mile around NSO)

Zones Found: 1, 2, 3, and 4

Justification: The combination of these two stipulations is necessary to protect the setting in developed sites and to maintain and enhance the recreation opportunities, including the visual setting and audible and olfactory environments. This stipulation will also ensure the safety of Forest visitors.

The less restrictive stipulations of timing or all CSU will not prevent possible adverse impacts to this resource because timing and CSU are operational stipulations which allow surface occupancy. Any surface occupancy may result in adverse impacts to the recreation resource.



Application Methodology: To apply this stipulation combination to develop recreation sites, the interdisciplinary team identifies the sites to be protected.

Conditions for WEMs: Waivers, exceptions, and modification will rarely occur. This one stipulation where an exception might be granted is if the stipulation is applied over a broad area and the operator can demonstrate that the values stated above can be met by siting the development within the NSO area. The stipulation may be waived if a recreation site is removed from the recreation management inventory.

Resource: Wildlife (Raptors Including Golden Eagles, Osprey, Hawks, Owls, and Falcons, **except** Peregrine)

Stipulation: Timing (no activity between February 1 and August 15) within 1/4 miles of known active nest sites.

Zones Found: 1, 2, and 3

Justification: This stipulation is necessary to protect nesting potential for these species. A 1/4 mile no-disturbance buffer around these sites while they are active will ensure their solitude and maintain the viable nesting habitat.

Application Methodology: This stipulation is applied to known active sites of these species. Active means the site is used periodically (some species rotate two or three nesting sites over the years) and maintained in a usable condition. The active status must be field-verified no earlier than May 15.

All disturbance zones are line-of-sight distance up to 1/4 mile. If topography or vegetation provides screening, this distance may be reduced, provided analysis concludes that site integrity can be maintained.

Application of this stipulation would rarely prohibit surface occupancy somewhere on a lease or a typical 320-acre well spacing unit.

Conditions for WEMs: Waivers, exceptions, or modifications could be granted in the event that a site existing at the time of the lease issuance is totally abandoned or destroyed. The timing stipulation may be modified if topographic barriers or vegetative screening can be utilized to protect the value of the nest site. If the lessee demonstrates that the values can be maintained while conducting operations within the restricted times for an active nest, and analysis concurs, an exception may be granted.

Resource: Wildlife (Critical Habitat)

Stipulation: Timing

Big Game Production Areas: No activity May 1 to July 30

Big Game Winter Range - December 15 through May 15  
Greater Sandhill Cranes Nesting areas - May 1 through July 1  
Grouse Breeding Complex - March 1 through June 30

Zones Found: 1, 2, 3, and 4

Justification: These timing stipulations are necessary to protect the breeding potential and winter survival of these species. Disturbances during critical times may place unnecessary stress on the particular species being protected and cause an increase in mortality.

Application Methodology: These critical habitats have been identified using Forest Service and Colorado Division of Wildlife data. The areas identified are the most important areas for production, nesting, and wintering of these particular species mentioned. In addition, the big game winter range timing stipulation would be applied to any area allocated to Management Area Prescription 5.41 (Deer and Elk Winter Range).

Conditions for WEMs: If the lessee demonstrates that operations can be conducted in a manner which protects the wildlife habitat values present, an exception would be feasible.

Resource: Heritage Resource Sites over 40 acres (Park and Teller City Historic Mining Towns and Windy Ridge paleontological site)

Stipulation: NSO

Zones Found: 3 and 4

Justification: Park and Teller City are historic mining towns. Windy Ridge is the site of a quarry for Indian tools. The significance of these sites is well documented. These sensitivity and density of these sites require the NSO stipulation for protection.

Less restrictive stipulations will not be adequate for protection of the sites.

Application Methodology: The stipulation will be applied around these sites.

Conditions for WEMs: Waivers, exceptions, or modifications are not expected for this stipulation.

Resources: Visually Sensitive Lands

Stipulations: CSU - Modification to siting and design of development activities in order to meet the visual quality objectives.

Zones Found: 1, 2, 3, and 4

Justification: Areas on the Forest with high scenic and recreational values may require

screening, buffering, or site relocation beyond that which is allowed under the standard lease terms.

Application Methodology: This stipulation is applied to areas allocated to Management Area Prescriptions 4.2 (Scenery and Major Transportation Corridors) or 4.3 (Dispersed Recreation) or other areas with a visual quality objective of partial retention. In order to meet the visual quality objective in areas of retention and/or partial retention or to maintain the recreational values. It may be necessary to modify the siting or design of proposed development activities. This stipulation gives the Forest Service the authority to relocate the site or modify the timing more than it permitted in the standard lease terms to meet the retention objective.

Conditions for WEMs: A waiver, exception, or modification to this stipulation may be granted if the analysis of proposed development shows that an activity will not violate the visual quality objective of retention.

Resource: Sensitive Watersheds

Stipulation: CSU - Best management practices (BMPs) are required to protect resource.

Zones Found: 1, 2, 3, and 4

Justification: In watersheds identified as sensitive, further increase in water yield and sediment may cause adverse impacts. The CSU stipulation gives the lessor the ability to apply the necessary BMPs to prevent further degradation of these watersheds.

Application Methodology: The HYSED model has been used to determine watershed sensitivity.

Conditions for WEMs: Waivers, exceptions, or modifications would be considered if analysis of specific proposals discloses that watersheds are no longer sensitive. In this case, a waiver of the stipulation is feasible. No other waivers, exceptions, or modifications are expected because the CSU stipulation gives the lessor more authority to require operational practices to protect the resource. If proposed activity does not require stricter operational guidelines, the initial guidelines would be approved, but the stipulation would not change.

Resource: Fisheries - Colorado River Cutthroat Trout Habitat (CRCT)

Stipulation: CSU - BMPs are required to protect known and suspected CRCT habitat. Surveys to identify remnant populations of the trout may be request prior to issuance of a Permit to Drill.

Zones Found: 1, 2, 3, and 4

Justification: The CRCT is classified as a Federal Category II Candidate Species for listing as Threatened or Endangered and is classified by the state of Colorado as

Threatened. Little is known about the specific habitat requirements of the CRCT or the present distribution and security of the remaining populations. It is suspected that other populations, unknown at this time, could be detected by surveys conducted in the analysis area prior to issuance of a Permit to Drill. BMPs must be used in areas where activity could potentially affect known and suspected populations of CRCT. These BMPs will be used to minimize erosion, prevent sediment from entering perennial and intermittent stream courses, avoid stream crossings, and ensure protection of flood plains, riparian zones, and water quality.

Application Methodology: Certain 4<sup>th</sup> order watersheds on the Forest are known to harbor populations of CRCT. Surveys to detect additional populations within these watersheds and elsewhere on the Forest are ongoing. If a Permit to Drill is requested in an area that has not been surveyed, the Forest will need to complete a survey to determine if CRCT exist in the zone of influence of the proposed project. This survey will also identify the anticipated effects of the proposed action on CRCT or its habitat. The zone of influence of oil and gas exploration activities can only be determined when an analysis is conducted on the surface use plan of operations submitted when a lessee applies for a Permit to Drill. If the time and funds are not immediately available for the Forest to conduct a survey, the lessee may be requested to assist in the survey or face a delay in the issuance of the permit. If the survey of the potential CRCT habitat determines that the proposed action may have an adverse effect on CRCT even if BMPs are followed, additional restrictions or denial to the lessee's proposal may result.

Conditions for WEMs: In some case, BMPs in CRCT habitat may not be required if the proposed development will not directly or indirectly impact any streams within the watershed. If surveys for CRCT occurrence have already been completed in the analysis area of the proposed action, not further survey will be requested, although BMPs may still be required.

Resource: Shorty/Cataract Unique Natural Area

Stipulation: CSU

Zones Found: 1

Justification: This area contains unique species richness and diversity, an abundance of riparian vegetation and associated species, and numerous ponds and beaver-enhanced wetlands.

The CSU stipulation is needed in this area to ensure that this unique ecosystem is protected through the use of nontraditional site design, access design, or site location practices. The BMPs that will prevent destruction of this ecosystem and its components will be required. These practice may include such things as restricting road development to areas that have already been impacted by past road construction, restricting roads to locations less than 40% slope, not approving road construction on hydric soils or where soils are susceptible to mass movement etc.

Application Methodology: This unique area exists on approximately 6,000 acres in Zone 1. The CSU stipulation will not prohibit surface occupancy somewhere on a 320-acre spacing unit.

Conditions for WEMs: Waivers, exceptions, or modifications to this stipulation are not expected.

Resource: Eligible Wild and Scenic Rivers

Stipulation: NSO

Zones Found: 1 and 4

Justification: The NSO stipulation is required to maintain the river segment in a condition that makes it eligible for wild and/or scenic designation. This can be accomplished with the NSO stipulation.

Application Methodology: This stipulation is applied to areas allocated to management area prescriptions 1.5 (National River System - Eligible Wild Rivers) and 3.4 (National River System - Eligible Scenic Rivers). This stipulation would not prohibit surface occupancy somewhere on a 160 well spacing unit.

Resource: Research Natural Areas

Stipulation: NSO

Zones Found: 4

Justification: The stipulation is required to protect the natural condition for which an area has been proposed as Research Natural Area. Activities other than research and study are limited to those which do not destroy the natural vegetation. Roads and facilities are not allowed within the Research Natural Area. NSO is appropriate because it will not allow occupancy in these natural areas, thereby protecting areas for study. Standard lease terms or other stipulations would be inadequate because occupancy would be allowed, disturbing and impacting the natural functions of the ecosystem.

Application Methodology: This stipulation is applied to those areas allocated to Management Area Prescription 2.2 (Proposed Research Natural Area).

Conditions for WEMs: Waivers, exception, or modifications to this stipulation will be considered only at the time operations are proposed and will be subject to the forest plan in effect at the time of consideration. Granting of a WEM should not be expected in these areas.

Resource: Backcountry Nonmotorized and Motorized Recreation

Stipulations: NSO

Zones Found: 1, 2, 3, and 4

Justification: The NSO Stipulation is required to protect the backcountry nature and experience within these undeveloped areas. Backcountry prescriptions areas are generally unroaded, natural-appearing, and have little evidence of recent human-caused disturbance. The NSO stipulation would be the most appropriate stipulation to protect these backcountry values. Surface disturbances of any kind would affect the nature and recreation potential of these areas. Standard lease terms, CSU, or timing stipulations would all allow occupancy, but would not protect the backcountry experience. NSO allows these lands to be leased, while protecting and maintaining their undeveloped settings.

Application Methodology: This stipulation is applied to areas allocated to Management Area Prescriptions 1.32 (Backcountry Recreation - Nonmotorized) and 3.31 (Backcountry Recreation - Motorized).

Conditions for WEMs: Waivers, exception, or modifications to this stipulation will be considered only at the time operations are proposed and will be subject to the forest plan in effect at the time of consideration. Granting of a WEM should not be expected in these areas.

Resource: Municipal Watersheds

Stipulation: NSO

Zone Found: 4

Justification: The NSO stipulation is required to protect the high quality water that is produced in the watershed. Surface disturbance of any kind would affect the quality of water supplied to the Steamboat Springs area. Standard lease terms, CSU, or timing stipulations would all allow occupancy but would not protect the high quality water values. NSO allows these lands to be leased, while protecting and maintaining the high-quality water that is produced in the watershed.

Application Methodology: This stipulation is applied to areas allocated to Management Area Prescription 3.23 (Municipal Watersheds - Water Quality Emphasis).

Conditions for WEMs: Waivers, exception, or modifications to this stipulation will be considered only at the time operations are proposed and will be subject to the forest plan in effect at the time of consideration. Granting of a WEM should not be expected in these areas.

Resource: Special Interest Areas

Stipulation: CSU

Zones Found: 1, 3, and 4

Justification: Areas on the Forest that have unique setting or unusual characteristics may require screening, buffering, or site relocation beyond that which is allow under the standard lease terms.

Application Methodology: This stipulation is applied to areas allocated to Management Area Prescription 2.1 (Special Interest Area). In order to protect the attributes that led to the designation of the special interest area, it maybe necessary top modify the siting or design of proposed development activities. This stipulation gives the Forest Services the authority to relocate or modify the site more than is permitted in the standard lease terms.

Conditions for WEMs: Waivers, exception, or modifications to this stipulation will be considered only at the time operations are proposed and will be subject to the forest plan in effect at the time of consideration. Granting of a WEM should not be expected in these areas.

Resource: Residential Interface

Stipulation: CSU

Zones Found: 1, 2, 3, and 4

Justification: Areas of forest ownership intermingled with private lands may require screening, buffering or site relocation beyond that which is allowed under the standard lease terms.

Application Methodology: This stipulation is applied to areas allocated to Management Area Prescriptions 7.1 (Residential/Forest Interface). In order to protect the private residence from being impacted by oil and gas development, it may be necessary to modify the siting or design of proposed development activities. This stipulation gives the Forest Service the authority to relocate or modify the site more than it permitted in the standard lease terms.

Conditions for WEMS: Waivers, exception, or modifications to this stipulation will be considered only at the time operations are proposed and will be subject to the forest plan in effect at the time of consideration. Granting of a WEM should not be expected in these areas.

Additional stipulation maps provided by the office include:

- [CODE RT\_1] TL/CSU Nov 15 - July 31, NSO Undifferentiated
- [CODE RT\_2] Timing Limitations

Miles City, MT & South Dakota BLM



Stip No.            Text

NO SURFACE OCCUPANCY:

- [CODE MC1] MT-11-1            Surface occupancy and use is prohibited within existing coal leases with approved mining plans.
- To protect existing coal leases with approved mining plans.
- [CODE MC2] MT-11-2            Surface occupancy and use is prohibited within riparian areas, 100-year flood plains of major rivers, and on water bodies and streams.
- To protect the unique biological and hydrological features associated with riparian areas, 100-year flood plains of major rivers, and water bodies and streams.
- [CODE MC3] MT-11-3            Surface occupancy is prohibited in the designated Bighorn Sheep Range.
- To protect the limited area of bighorn sheep habitat in southeastern Montana.
- [CODE MC4] MT-11-4            Surface occupancy and use is prohibited within 1/4 mile of grouse leks.
- To protect sharptail and sage grouse lek sites necessary for the long-term maintenance of grouse populations in the area.
- [CODE MC5] MT-11-5            Surface occupancy and use is prohibited within 1/4 mile of designated reservoirs with fisheries.
- This stipulation is intended to protect the fisheries and recreational values of reservoirs.
- MT-11-6                        Surface occupancy and use is prohibited within 1/2 mile of known bald eagle nest sites which have been active within the past 7 years and within bald eagle nesting habitat in riparian areas.
- To protect bald eagle nesting sites and/or nesting habitat in accordance with the Endangered Species Act (ESA) and the Montana Bald Eagle Management Plan.
- MT-11-7                        Surface occupancy and use is prohibited within 1 mile of identified peregrine falcon nesting sites.
- To protect the habitat of the peregrine falcon, an

endangered species under the Endangered Species Act (ESA).

[CODE MC8] MT-11-8

Surface occupancy and use is prohibited within 1/2 mile of known ferruginous hawk nest sites which have been active within the past 2 years.

To maintain the production potential of ferruginous hawk nest sites, which are very sensitive to disturbance and have been identified as Category 2 species under the Endangered Species Act (ESA).

MT-11-9

Surface occupancy and use is prohibited within 1/4 mile of wetlands identified as piping plover habitat.

To protect the habitat of the piping plover, an endangered species under the Endangered Species Act (ESA).

MT-11-10

Surface occupancy and use is prohibited within 1/4 mile of wetlands identified as interior least tern habitat.

To protect the habitat of the interior least tern, an endangered species under the Endangered Species Act (ESA).

[CODE MC11] MT-11-11

Surface occupancy and use is prohibited within sites or areas designated for conservation use, public use, or sociocultural use.

To protect those cultural properties identified for conservation use, public use, and sociocultural use. (see definitions for use categories within BLM Manual 8111).

[CODE MC12] MT-11-12

Surface occupancy and use is prohibited within designated paleontological sites.

To protect significant paleontological sites.

[CODE MC13] MT-11-13

Surface occupancy and use is prohibited within developed recreation areas and undeveloped recreation areas receiving concentrated public use.

To protect developed recreation areas and undeveloped recreation areas receiving concentrated public use.

**CONTROLLED SURFACE USE:**

MT-12-1

[CODE MC14]

Prior to surface disturbance on slopes over 30 percent, an engineering/reclamation plan must be approved by the authorized officer. Such plan must demonstrate how the following will be accomplished:

- Site productivity will be restored.
- Surface runoff will be adequately controlled.
- Off-site areas will be protected from accelerated erosion, such as rilling, gullying, piping, and mass wasting.
- Water quality and quantity will be in conformance with state and federal water quality laws.
- Surface-disturbing activities will not be conducted during extended wet periods.
- Construction will not be allowed when soils are frozen.

To maintain soil productivity, provide necessary protection to prevent excessive soil erosion on steep slopes, and to avoid areas subject to slope failure, mass wasting, piping, or having excessive reclamation problems.

MT-12-2

[CODE MC15]

Prior to surface disturbance, a surface use plan of operations (SUPO) for oil and gas activities must be approved for black-footed ferret reintroduction areas by the authorized officer in consultation with the U.S. Fish and Wildlife Service (USFWS).

To protect designated black-footed ferret reintroduction habitat areas.

MT-12-3

[CODE MC16]

Prior to surface disturbance, prairie dog colonies and complexes 80 acres or more in size will be examined to determine the absence or presence of black-footed ferrets. The findings of this examination may result in some restrictions to the operator's plans or may even preclude use and occupancy that would be in violation of the Endangered Species Act (ESA) of 1973.

The lessee or operator may, at their own option, conduct an examination on the leased lands to determine if black-footed ferrets are present, or if the proposed activity will have an adverse effect, or if the area can be cleared. This examination must be done by or under the supervision of a qualified resource specialist approved by the Surface Management Agency (SMA).

An acceptable report must be provided to the SMA documenting the presence or absence of black-footed ferrets and identifying the anticipated effects of the proposed action on the black-footed ferret and its habitat. This stipulation does not apply to the operation and maintenance of production facilities.

To assure compliance with the Endangered Species Act (ESA) by locating and protecting black-footed ferrets and their habitat.

[CODE MC17] MT-12-4

All surface-disturbing activities, semi-permanent and permanent facilities in VRM Class II, areas may require special design, including location, painting, and camouflage, to blend with the natural surroundings and meet the visual quality objectives for the area.

To control the visual impacts of activities and facilities within acceptable levels.

[CODE MC18  
MC\_ANTELOP,  
MC\_MULEDEE,  
MC\_WHITETA]

TIMING:

MT-13-1

Surface use is prohibited from December 1 to March 31 within crucial winter range for wildlife. This stipulation does not apply to the operation and maintenance of production facilities.

To protect crucial white-tailed deer, mule deer, elk, antelope, moose, bighorn sheep, and sage grouse winter range from disturbance during the winter use season, and to facilitate long-term maintenance of wildlife populations.

MT-13-2

Surface use is prohibited from April 1 to June 15 within established spring calving range for elk. This stipulation does not apply to the operation and maintenance of production facilities.

To protect elk spring calving range from disturbance during the spring use season, and to facilitate long-term maintenance of wildlife populations.

[CODE MC20 MT-13-3  
MC\_SAGEGRO]

Surface use is prohibited from March 1 to June 15 in grouse nesting habitat within 2 miles of a lek. This stipulation does not apply to the

operation and maintenance of production facilities.

To protect sharptail and sage grouse nesting habitat from disturbance during spring and early summer in order to maximize annual production of young and to protect nesting activities adjacent to nesting sites for the long-term maintenance of grouse populations in the area.

[CODE MC21] MT-13-4

Surface use is prohibited from March 1 - August 1, within 1/2 mile of raptor nest sites which have been active within the past 2 years. This stipulation does not apply to the operation and maintenance of production facilities.

To protect nest sites of raptors which have been identified as species of special concern in Montana, North or South Dakota.

LEASE NOTICE:

MT-14-1

Land Use Authorizations incorporate specific surface land uses allowed on BLM administered lands by authorized officers and those surface uses acquired by BLM on lands administered by other entities. These BLM authorizations include rights-of-way, leases, permits, conservation easements, and Recreation and Public Purpose leases and patents.

The rights acquired, reserved, or withdrawn by BLM for specified purposes include non-oil and gas leases, conservation easements, archeological easements, road easements, fence easements, and administrative site withdrawals. The existence of such land use authorizations shall not preclude the leasing of the oil and gas. The locations of land use authorizations are noted on the oil and gas plats and in ALMRS/ORCA. The plats are a visual source noting location; ORCA provides location by legal description through the Geographic Cross Reference program.

The specifically authorized acreage for land use should be avoided by oil and gas exploration and development activities. All authorized surface land uses are valid claims to prior existing rights unless the authorization states otherwise.



The right of the Secretary to issue future land use authorizations on an oil and gas lease is reserved by provision of Section 29 of the Mineral Leasing Act, 30 U.S.C.

MT-14-2

**CULTURAL RESOURCES:**

The surface Management Agency is responsible for assuring that the leased lands are examined to determine if cultural resources are present and to specify mitigation measures. Guidance for application of this requirement can be found in NTL-MSO-85-1.

This notice would be consistent with the present Montana guidance for cultural resource protection related to oil and gas operations (NTL-MSO-85-1).

**NO LEASE:**

MT-15-1

To protect habitat within the boundary of the Pryor Mountain Wild Horse Range that is used by wild horse herds. This area also has primitive recreation values.

MT-15-2

To protect the intensive management of the developed recreation areas and structures, the cultural and historical values, wildlife habitat, and scenic values of Fort Meade.

MT-15-3

To protect the esthetic quality of the Meeteetse Spires pinnacles and habitat of the rare plant species *Shoshonia* (*Shoshonea pulvinata*) and *Townsendia* (*Townsendia spathulata*) found around or near the tops of the pinnacles.



# Missoula, MT BLM – Garnett RMP

A total of 14 management areas have been identified for use in the Garnett RMP. Each management area consists of units of public land with similar resource potentials and limitations that are designated for management under a common set of management goals and guidelines. Management area boundaries do not always follow easily located topographic features or legal subdivisions. The boundaries are flexible to assure proper management of resources identified through additional on-the-ground reconnaissance and project planning. Each management area may occur in several places within the resource area. The map displaying management areas (in back map packet) must be used in conjunction with these descriptions.

Management area descriptions, goals, and guidelines for the Garnett Resource Area are defined in this chapter. The guidelines include numerous mitigative and resource coordination measures as required by NEPA and other laws, regulations, and policies.

## MANAGEMENT AREA 1: RIPARIAN PROTECTION ZONE

### Description

Management Area 1 includes lands dominated by riparian vegetation, adjacent to rivers, perennial and intermittent streams, lakes, ponds, bogs, marshes, seeps, and wet meadows with high values for wildlife and fish habitat, visual and recreational enjoyment, watershed and water quality protection, and livestock forage.

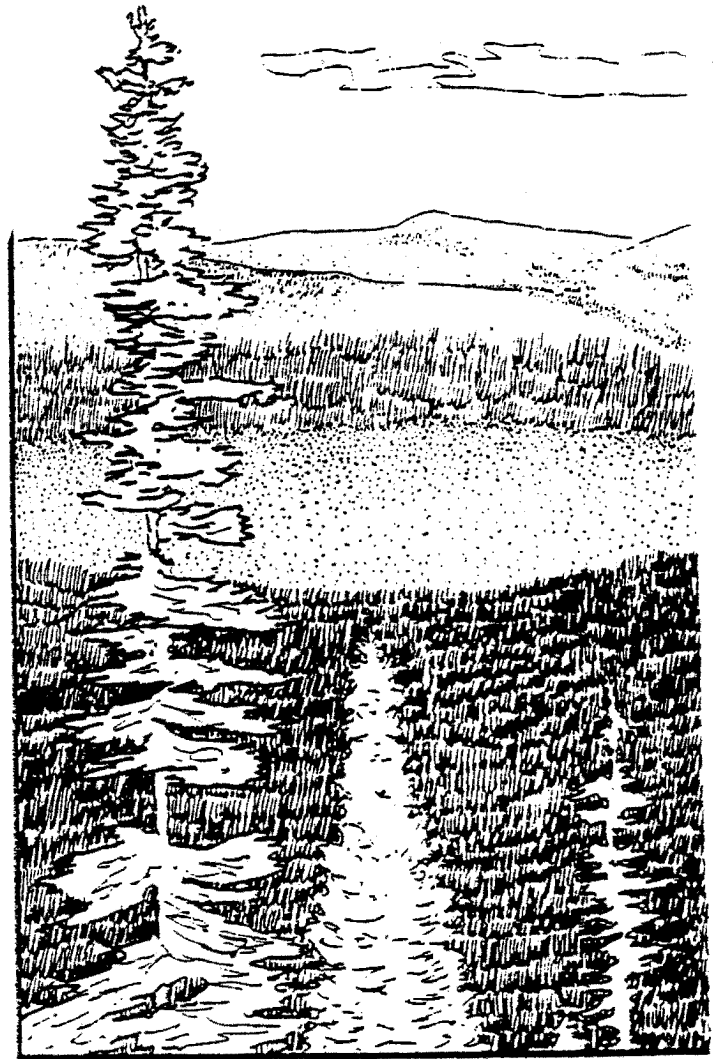
### Management Goals

1. Manage riparian areas to maintain or enhance their value for wildlife, recreation, fishery, and aquatic habitat.
2. Provide some elements of old-growth or mature forest for wildlife habitat.
3. Provide opportunities to improve wildlife and fisheries habitat through specifically prescribed vegetative manipulation.
4. Maintain or enhance site productivity, water quality, and stream stability.

### Management Guidelines

1. Livestock grazing generally will be permitted where use has been established. Grazing systems and management practices will be designed to maintain or improve riparian vegetation, aquatic habitat conditions, and streambank stability.
2. Oil and gas leases will be issued with standard stipulations and special stipulations as needed.

## CHAPTER 3 MANAGEMENT AREA PRESCRIPTIONS





## CHAPTER 3

3. Locatable minerals will be regulated by 3809 Regulations. Mining activities will be guided by management goals.

4. Mineral material permits generally will not be issued.

5. Herbicides and insecticides will not be used.

6. Commercial forest land is set aside.

7. Noncommercial forest land is unavailable for woodlands product harvest.

8. Firewood collection will not be authorized. Exceptions may be permitted where compatible with management goals.

9. New roads will avoid riparian zones, except where required to cross streams or to provide access to meet management goals. Existing roads in the riparian zone will be reviewed for possible stabilization, closure, or relocation outside the riparian zone.

10. A variety of dispersed and water based recreation activities are permitted and may be supported by the development of river access, trails, and trailhead facilities. Cooperative river management programs for recreation will be encouraged with appropriate BLM participation on the Clark Fork River, Blackfoot River, and Rock Creek.

11. Motorized vehicle use will be restricted to open roads and trails. Exceptions may be permitted for snowmobile use.

12. The area will be managed to meet the visual quality objective of Visual Resource Management Class II or III from the viewpoints identified on the visual sensitivity maps. Temporary departures from this visual quality objective may be acceptable when long-term visual values require such an action, or essential road access into other management areas is impossible without this temporary departure. Visual quality rehabilitation measures will be taken where the visual quality objective is not being met.

13. These lands generally will remain in public ownership. However, exceptions may be permitted where exchanges would result in acquisition of lands with greater public values.

14. These lands will be avoidance areas for utility corridors.

[CODE G2]

## MANAGEMENT AREA 2: RIPARIAN MULTIPLE USE ZONE

### Description

Management Area 2 includes lands dominated by riparian vegetation, adjacent to perennial and intermittent streams, ponds, bogs, marshes, seeps, springs, and wet meadows with value for wildlife and fish habitat, visual and recreational enjoyment, watershed and water quality protection, and livestock forage.

## Management Goals

1. Manage riparian areas to maintain or enhance their value for wildlife, recreation, fishery, and aquatic habitat.

2. Under the principles of sustained yield, manage suitable and available commercial forest land with operational restrictions that maintain or improve riparian zone values.

3. Provide elements of old-growth or mature timber for wildlife habitat.

4. Maintain or enhance site productivity, water quality, and stream stability.

## Management Guidelines

1. Livestock grazing generally will be permitted. Grazing systems and management practices will be designed to maintain or improve riparian vegetation, aquatic habitat conditions, and streambank stability.

2. Oil and gas leases will be issued with standard stipulations and special stipulations as needed.

3. Locatable minerals will be regulated by 3809 Regulations. Mining activities will be guided by management goals.

4. Mineral material permits generally will not be issued.

5. Herbicides and insecticides will not be used.

6. The width of the riparian influence zone will be determined on a site-specific basis for project plans. For general land management planning the management area will be considered as 75 feet on either side of designated stream channels or other aquatic features.

7. Timber management activities will be designed to maintain or improve riparian zone values.

8. Noncommercial forest land is available for wood product harvest. Generally, harvest will only occur when scheduled timber sales on adjacent commercial forest land provide an opportunity for sanitation or salvage, or when multiple use management goals require silvicultural treatment or habitat improvement to obtain desired stand structure and composition.

9. Firewood collection may be authorized. Closures may be implemented where needed to achieve management goals.

10. Machine scarification will not be used on slopes over 40 percent or in the riparian buffer zones designated in Table 3-1.

11. No wheel or crawler vehicles will operate within 75 feet of perennial and intermittent streams, except as required for road construction at stream crossings. Timber harvest and site preparation will maintain a minimum 75-foot wide strip of vegetation along stream channels to filter sediment and organic debris from disturbed areas.

**TABLE 3-1  
RIPARIAN BUFFER ZONE**

Land Slope	Buffer Zone
10 percent	75 feet
20 percent	130 feet
30 percent	170 feet
40 percent	210 feet

12. New road locations will avoid the riparian zones, except where required to cross streams or to provide access to meet management goals. Road location and design adjacent to seeps, bogs, marshes, and wet meadows should avoid diverting flow of water from riparian features below roads or draining riparian features above roads.

13. A variety of dispersed and water based recreation activities are permitted and may be supported by the development of access trails and trailheads.

14. Motorized vehicle use will be restricted to open roads and trails. Exceptions may be permitted for snowmobile use.

15. The area will be managed to meet the visual quality objective of Visual Resource Management Class II or III from the viewpoints identified on the visual sensitivity maps. Temporary departures from this visual quality objective may be acceptable when long-term visual values require such an action, or essential road access into other management areas is impossible without this temporary departure. Visual quality rehabilitation measures will be taken where the visual objective is not being met.

16. These lands may be available for exchange or sale. All proposals will be evaluated.

17. These lands may be available for consideration as utility corridor if compatible with management goals.

2. Maintain site productivity, water quality, and stream stability.

3. Provide for dispersed recreation opportunities, wildlife habitat, and livestock use within the constraints of 1 and 2 above.

4. Provide elements of old-growth wildlife habitat in the immediate vicinity of important big game summer and fall habitat features such as wallows, licks, security areas, etc.

## Management Guidelines

1. Livestock grazing generally will be permitted. Fencing, herding, manipulation of salt and water, or adjustments in the pasture rotation schedule will be used to protect regeneration in plantations. The number of animal unit months (AUMs) authorized may be increased, reduced, or relocated in response to vegetative changes.

2. Oil and gas leases will be issued with standard stipulations.

3. Generally, these lands are available for mineral exploration and production. Locatable minerals will be regulated by the 3809 Regulator. Mining activities will be guided by management goals.

4. Project plans will incorporate considerations for elk summer habitat, deer and elk winter ranges, riparian habitat, and nongame wildlife habitat management where these values are present or potentially present.

5. Specific big game features such as wallows, mineral licks, and important forage and resting sites associated with mesic areas will be protected with a buffer strip in which sanitation and salvage or selection harvest maintaining a minimum 70 percent of existing or normal tree canopy is permitted. For planning purposes, the width of the buffer strip will be mapped as 200 feet from the perimeter of the feature or complex of features. For project activity, the buffer strip width may vary, depending on the effectiveness of vegetative and topographic screens, but will not exceed 300 feet. Cutting unit boundaries will be adjusted so that the feature is contiguous to forested hiding cover. Skidding equipment should not be permitted within 100 feet of the feature and logging debris should be removed from all trails leading to the feature.

6. Riparian areas not designated Management Area 1 or Management Area 2 will be recognized in activity plans, and Best Management Practices for the protection of water quality and riparian features will be applied. The width of the riparian influence zone will be determined on a site-specific basis.

7. Timber harvest systems will include varying proportions of clearcut, seed tree, shelterwood, and selection depending on stand and site productivity and silvicultural objectives.

8. Timber harvest and slash treatment practices will be designed to provide opportunities for public firewood collection.

[CODE G3]

## MANAGEMENT AREA 3: GENERAL FOREST MANAGEMENT

### Description

Management Area 3 consists of commercial forest lands of varying physical environments classified as suitable for timber management through timber production capability classification (see Appendix B).

### Management Goals

1. Under the principles of sustained yield, manage suitable and available commercial forest land to realize timber growing potential.

## CHAPTER 3

9. Machine scarification will not be used on slopes over 40 percent or in the riparian buffer zones designated in Table 3-2.

**TABLE 3-2**  
**RIPARIAN BUFFER ZONES FOR**  
**TOLERANT AND SENSITIVE SOILS**

Land Slope	For General Situation	Buffer Zone for Sensitive Soils
10 percent	45 feet	75 feet
20 percent	65 feet	130 feet
30 percent	85 feet	170 feet
40 percent	105 feet	210 feet

10. No wheel or crawler vehicles will operate within 45 feet of perennial and intermittent streams, except as required for road construction at stream crossings. Timber harvest and site preparation will maintain a minimum 45-foot wide strip of vegetation along stream channels to filter sediment and organic debris from disturbed areas.

11. Timber harvest will be designed to prevent an increase in runoff that is likely to result in stream channel degradation.

12. A variety of dispersed recreation activities are permitted and may be supported by construction of trails and trailheads.

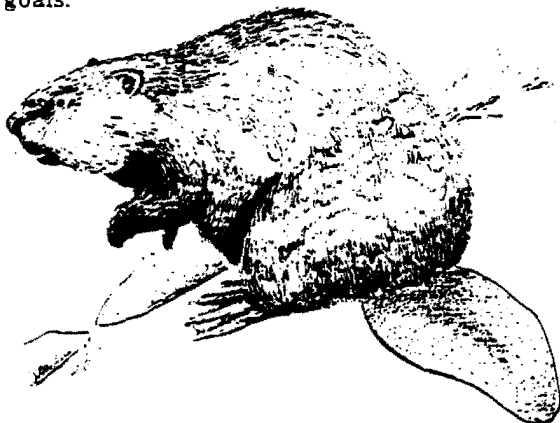
13. Motorized vehicle use will be restricted to open roads and trails. Exceptions may be permitted for snowmobile use.

14. Seasonal or yearlong road closures will be permitted to achieve management goals for Management Area 3 or for adjacent management areas.

15. Management practices will follow guidelines for Visual Resource Management Class III or IV.

16. These lands may be available for exchange or sale depending upon their size and location. All proposals will be evaluated.

17. These lands may be available for consideration as utility corridors if compatible with management goals.



## **MANAGEMENT AREA 4: ELK SUMMER AND FALL HABITAT COMPONENTS**

### **Description**

Management Area 4 includes high density mappable portions of the resource area's elk summer and fall habitat components. It includes commercial forest, noncommercial forest, and nonforest lands containing components such as wallows, mineral licks, travel corridors, forage, and security areas in close proximity so that they tend to concentrate big game animals in a relatively small area. Although emphasis is on elk, other big game species will receive management consideration.

### **Management Goals**

1. Maintain or improve elk summer and fall habitat components through specifically prescribed vegetative manipulation.
2. Provide elements of old-growth or mature timber for wildlife habitat in the immediate vicinity of elk summer and fall habitat components.
3. Manage riparian areas to maintain or enhance their value for wildlife, fisheries, aquatic habitat, recreation, watershed protection, and water quality.
4. Under the principles of sustained yield, manage suitable and available commercial forest land with operational restrictions that consider long-term requirements for elk summer and fall habitat components, including habitat conditions on adjoining lands.
5. Maintain site productivity, water quality, and stream stability.

### **Management Guidelines**

1. Livestock grazing generally will be permitted and will be regulated to maintain or improve elk summer and fall habitat components.
2. Oil and gas leases will be issued with standard stipulations and special stipulations as needed.
3. Locatable minerals will be regulated by 3809 Regulations. Mining activity will be guided by management goals.
4. Riparian areas not designated Management Area 1 or Management Area 2 will be recognized in activity plans, and Best Management Practices for the protection of water quality and riparian features will be applied. The width of the riparian influence zone will be determined on a site-specific basis.
5. Timber management activities will be designed to maintain or improve elk summer and fall habitat components.

16. The resource area wildlife and forestry staff will review prescriptions, unit layout, and marking guides for effectiveness in providing hiding cover throughout the rotation.

17. Timber harvest along designated ridge tops, saddles, and draws used as travel routes by big game will be designed to maintain hiding or thermal cover 600 feet wide using predominantly shelterwood or selection systems along travel routes. Wherever possible cover should be continuous and not disrupted by clearcut or seed tree units or roads.

18. Machine scarification will not be used in slopes over 40 percent or in the riparian buffer zones designated in Table 3-2.

19. No wheel or crawler vehicles will operate within 45 feet of perennial and intermittent streams, except as required for road construction at stream crossings. Timber harvest will maintain a minimum 45-foot wide strip of undisturbed vegetation along stream channels to filter sediment and organic debris from disturbed areas.

20. Timber harvest will be designed to prevent an increase in runoff that is likely to result in stream channel degradation.

21. A variety of dispersed recreation activities are permitted and may be supported by existing trails and trailheads. New trail construction or relocation of existing trails will avoid this management area. Campgrounds and other recreation developments will not be constructed.

22. Motorized vehicle use will be restricted to open roads and trails. Exceptions may be permitted for snowmobile use.

23. Existing mainline and spur roads will be closed seasonally or yearlong to motorized vehicle travel, except where checkerboard ownership patterns prevent unilateral closure of roads. In these cases, BLM will aggressively pursue the establishment of seasonal or yearlong cooperative road closures. Any new roads will also be closed seasonally or yearlong.

24. Management practices will follow the guidelines for Visual Resource Management Class III or IV.

25. These lands generally will remain in public ownership. However, exceptions may be permitted where exchanges would result in acquisition of lands with greater public values.

26. These lands will be avoidance areas for utility corridors.

## **MANAGEMENT AREA 5: BIG GAME SUMMER AND FALL RANGE**

### **Description** [CODE G5]

Management Area 5 consists of commercial forest, noncommercial forest, and nonforest lands which are summer and fall ranges for big game, with emphasis on elk. This management area is applied where public lands are important elk summer and fall habitat.

### **Management Goals**

1. Provide a beneficial arrangement of forage and cover for big game summer and fall range through timber management activities.
2. Under the principles of sustained yield, manage suitable and available commercial forest land with operational restrictions that consider the long-term requirements of big game summer and fall habitat, including habitat conditions on adjoining lands.
3. Provide for dispersed recreation opportunities, nongame wildlife habitat, and livestock use.
4. Maintain site productivity, water quality, and stream stability.
5. Provide elements of old-growth or mature forest for wildlife habitat in the immediate vicinity of big game summer habitat components.

### **Management Guidelines**

1. Livestock grazing will generally be permitted and will be regulated to maintain summer range values.
2. Oil and gas leases will be issued with standard stipulations and special stipulations as needed.
3. Lands are generally available for locatable minerals and will be regulated by the 3809 Regulations. Mining activities will be guided by management goals.
4. Riparian areas not designated Management Area 1 or Management Area 2 will be recognized in activity plans, and Best Management Practices for the protection of water quality and riparian features will be applied. The width of the riparian influence zone will be determined on a site-specific basis.
5. Timber management activities will be designed to maintain or improve big game summer and fall habitat.
6. Noncommercial forest land may be considered for wood product harvest only when scheduled timber sales on adjacent commercial forest land provide an opportunity for sanitation or salvage, or when multiple use management goals require silvicultural treatment or habitat improvement to obtain desired stand structure and composition.

7. Firewood collection opportunities will be authorized in timber sale areas. Authorizations may be restricted as needed to achieve management goals.

8. Duration of timber sale activity will be limited to as short a period as possible. Timber should be harvested, slash treated, and roads closed within a maximum of three summer seasons.

9. Big game habitat components such as wallows, mineral licks, and foraging or resting sites will be protected with a buffer strip in which sanitation and salvage or selection harvest maintaining a minimum 70 percent of existing or normal tree canopy is permitted. For planning purposes the width of the buffer strip will be mapped as 200 feet from the perimeter of the components. For project activity, the buffer strip width may vary, depending on the effectiveness of vegetative and topographic screens, but will not exceed 300 feet. Cutting unit boundaries will be adjusted so that the component is contiguous to forested hiding cover. Skidding equipment should not be permitted within 100 feet of the component, and logging debris should be removed from all trails leading to the component.

10. Timber harvest will be designed to maintain or develop hiding cover adjacent to natural big game forage areas. Shelterwood or selection systems will generally be favored adjacent to one to five-acre parks, meadows, and grasslands; and intermediate treatments (thinnings) will be designed to maintain hiding cover. For parks, meadows, and grasslands over 5 acres timber harvest will remove cover from no more than 40 percent of the park perimeter. The remainder of the perimeter will be maintained in existing cover until harvested portions return to hiding cover. Hiding cover on the upslope portions of parks is especially critical. The resource area wildlife and forestry staff will review prescriptions, cutting unit layout, and marking guides for effectiveness in providing hiding cover throughout the rotation.

Security areas will be maintained adjacent to units where timber sales are scheduled as described in *Montana Cooperative Elk Logging Study* (USDA, FS 1982a) management recommendations. Security areas should consist of adjacent drainages with acceptable cover quality in which no disturbance or timber sale activity is scheduled.

11. Slash disposal in cutting units will reduce average slash depths to less than 1.5 feet to reduce interference with big game forage use and travel.

12. Timber harvest will include varying proportions of clearcut, seed tree, and shelterwood systems, depending on stand and site conditions and silvicultural objectives.

13. In order to optimize cover effectiveness harvest units, except single or group tree selection, and thinning units will generally be irregular in shape at 20 to 40 acres. Reserve areas between treatment units will be a minimum of 600 feet wide. Timber harvest adjacent to past harvest units will be deferred until regeneration on harvest units constitute hiding cover with a minimum of 200 trees per acre 8 feet high.

14. Timber harvest along designated ridge tops, saddles, and draws used as travel routes by big game will be designed to maintain hiding or thermal cover 600 feet wide using predominantly shelterwood systems along travel routes. Wherever possible cover should be continuous and not disrupted by clearcut or seed tree units or roads.

15. Machine scarification will not be used on slopes over 40 percent or in the riparian buffer zones designated in Table 3-2.

16. No wheel or crawler vehicles will operate within 45 feet of perennial and intermittent streams, except as required for road construction at stream crossings. Timber harvest will maintain a minimum 45-foot wide strip of undisturbed vegetation along stream channels to filter sediment and organic debris from disturbed areas. Timber harvest will be designed to prevent an increase in runoff that is likely to result in stream channel degradation.

17. Road location will avoid habitat components including wallows, licks, high use forage areas, and saddles used as big game travel routes wherever possible. Road right-of-way slash will be disposed of in such a way that it does not pose a barrier to big game travel. Road right-of-way clearing will be kept to the minimum required. Roads will be located and designed to reduce barriers to big game travel.

18. A variety of dispersed recreation activities are permitted and may be supported by construction of trails and trailheads. Campgrounds and other recreation developments will not be constructed.

19. Motorized vehicle use will be restricted to open roads and trails. Exceptions may be permitted for winter snowmobile use.

20. Generally roads will be closed seasonally or yearlong to motorized vehicle travel, except where checkerboard ownership patterns prevent unilateral closure of roads. In these cases, BLM will aggressively pursue the establishment of seasonal or yearlong cooperative road closures.

21. Management practices will follow the guidelines for Visual Resource Management Class III or IV.

22. Generally, these lands will remain in public ownership.

23. These lands may be available for consideration as utility corridors if compatible with management goals.

## MANAGEMENT AREA 6: BIG GAME WINTER RANGE

### Description

Management Area 6 consists of commercial forest, noncommercial forest, and nonforest lands which are winter ranges for deer, elk, or bighorn sheep. These lands will be managed to attain a balance of winter cover and forage for big game through timber management activities.

staff will review prescriptions, unit layout, and marking guides for effectiveness in providing thermal cover throughout the rotation.

16. Silvicultural systems will include varying proportions of clearcut, seed tree, shelterwood, group selection, and single tree selection methods.

17. Road right-of-way slash will be disposed of in such a way that it does not pose a barrier to big game travel. Slash disposal in cutting units will reduce average slash depths to less than 1.5 feet to reduce interference with big game forage use and travel.

18. A variety of dispersed summer and fall recreation activities are permitted and may be supported by construction of trails and trailheads. Winter recreation activity will be permitted where it does not conflict with wintering big game.

19. Motorized vehicle use will be restricted to open roads and trails unless closed under the terms of Guideline 18.

20. Generally, roads will be evaluated for seasonal or yearlong closure to motorized vehicle travel, except where checkerboard ownership patterns prevent unilateral closure of roads. In these cases, BLM may aggressively pursue the establishment of seasonal and yearlong cooperative road closures.

21. Management practices will follow the guidelines for Visual Resource Management Class III or IV, except in visually sensitive corridors identified in the Resource Management Plan.

22. These lands generally will remain in public ownership. However, exceptions may be permitted where exchanges would result in acquisition of lands with greater public values.

23. Available for consideration as utility corridor if compatible with management goals.

2. Provide for the harvest of wood products from noncommercial forest and timber production capability classification withdrawn commercial forest while maintaining or enhancing other woodland resource values.

3. Maintain old-growth, mature forest, and unique features for wildlife habitat.

4. Provide opportunities for a variety of dispersed recreation activities.

## Management Guidelines

1. Livestock grazing will generally be permitted and may be regulated.

2. Oil and gas leases will be issued with standard stipulations and special stipulations as needed.

3. Lands are generally available for locatable minerals and will be regulated by the 3809 Regulations. Mining activities will be guided by management goals.

4. Management practices to maintain or improve wildlife habitat will be permitted.

5. Riparian areas not designated Management Area 1 or Management Area 2 will be recognized in activity plans and will be given consideration for the protection of water quality and riparian features. The width of the riparian influence zone will be determined on a site-specific basis.

6. Noncommercial forest land may be considered for wood product harvest only when scheduled timber sales on adjacent commercial forest land provide an opportunity for sanitation or salvage, or when multiple use management goals require silvicultural treatment or habitat improvement to obtain desired stand structure and composition.

7. Firewood collection opportunities may be available, but will be limited by the absence of scheduled timber sales.

8. Construction of roads to access other management areas will be avoided if possible. Road construction in riparian zones will be avoided except where required to cross streams.

9. A variety of dispersed recreation activities are permitted and may be supported by construction of trails and trailheads.

10. Motorized vehicle use will be restricted to open roads and trails. Exceptions may be permitted for snowmobile use.

11. Seasonal or yearlong road closures will be permitted to achieve management goals for Management Area 7 or for adjacent management areas.

12. This area will be managed to meet the visual quality objective of Visual Resource Management Class II or III. Temporary departures from this visual quality objective may be acceptable when long-term visual values require such an action or essential road access into other management areas is impossible

[CODE G7]

## MANAGEMENT AREA 7: NONCOMMERCIAL FOREST AND TPCC WITHDRAWN COMMERCIAL FOREST

### Description

Management Area 7 includes noncommercial forest land as well as commercial forest land withdrawn from the timber production base as a result of timber production capability classification (see Appendix B). These areas may include cliffs, caves, rock outcrops, talus, and old-growth timber.

### Management Goals

1. Maintain site productivity, water quality, and stream stability.

## CHAPTER 3

without this temporary departure. Visual quality rehabilitation measures will be taken where the visual quality objective is not being met.

13. These lands may be available for exchange or sale. All proposals will be evaluated.

14. These lands may be available for consideration as utility corridors if compatible with management goals.

## MANAGEMENT AREA 8: AREAS RECOMMENDED FOR WILDERNESS DESIGNATION

### Description

Management Area 8 consists of portions of the resource area that are being recommended for wilderness designation. Each such area has been evaluated or studied under either Section 202 or 603 of the Federal Land Policy and Management Act. Wilderness recommendations are based upon the wilderness review of the wilderness study areas (WSAs).

Wales Creek, Hoodoo Mountain, and Quigg West WSAs currently are subject to the BLM's *Interim Management Policy and Guidelines for Lands under Wilderness Review* (USDI, BLM 1983a). With the completion of the RMP, Gallagher Creek 202 WSA is released from the interim management policy (IMP) constraints. All other WSAs will be subject to IMP until Congress reviews the agency's recommendations. If any or all of these WSAs are not recommended suitable for wilderness, the area will be managed under the direction of one or more of the other management area prescriptions. These are identified in the map packet which accompanies this document.

### Management Goals

Manage in accordance with the Wilderness Act of 1964 and USDI BLM Wilderness Management Policy. These include the following basic concepts: preserve wilderness character in an unimpaired condition, provide opportunities for public use and enjoyment, and allow nonconforming but accepted uses in a manner that will prevent unnecessary or undue degradation of wilderness character.

### Management Guidelines

1. Following wilderness classification by Congress, a wilderness management plan will be written for each area and incorporated into the Garnett Resource Management Plan.
2. Livestock grazing, where already established, will be permitted to continue subject to the BLM wilderness management policy and grazing regulations (43 CFR 4100). Grazing systems and management practices will conform to BLM wilderness management policy.

3. Issuance of new oil and gas leases will be prohibited.

4. Subject to valid rights existing on the date of wilderness designation, mining will be prohibited and the area withdrawn from all forms of appropriation under the mining laws. Mining operations permitted because of valid existing rights must be based upon an approved plan of operations and will be regulated under 43 CFR 3809 and the BLM *Wilderness Management Policy* (USDI, BLM 1981b).

5. Mineral material permits will not be issued.

6. Herbicides and insecticides generally will not be used.

7. Fire management and control actions will be consistent with the BLM *Wilderness Management Policy* (USDI, BLM 1981b).

8. Commercial forest land is unavailable for timber production and is withdrawn from the sustained yield timber production base.

9. Noncommercial forest land is unavailable for wood product harvest.

10. Firewood collection is prohibited unless for incidental use associated with camping.

11. Visitor use will be managed to a level compatible with the wilderness resource to prevent loss of solitude or unacceptable depreciation of the wilderness qualities.

12. Trail construction may be permitted and will be accomplished with minimal disturbance of the natural environment.

13. Facilities and structures may be constructed to insure the protection of the wilderness values; however, facilities may not be constructed to provide convenience to recreationists.

14. Off-road vehicle use will not be permitted.

15. Management practices will follow the guidelines for the preservation of Visual Resource Management Class I, except for modifications caused by the operation of natural processes.

16. These lands will remain in public ownership.

17. These lands are unavailable for utility corridor development or facility siting.

## MANAGEMENT AREA 9: SPECIAL MANAGEMENT AREAS

### Description

Management Area 9 consists of land distinguished by special, unique, or natural characteristics which require some form of special management and include Areas of Critical Environmental Concern.

## Management Goals

1. Goals for each area will depend on the special and unique features or values within that particular area.
2. Ultimate disposition for each area will maintain, enhance, or restore site productivity, water quality, and stream stability.

## Management Guidelines

1. Livestock grazing generally will be permitted to continue where already established.
2. Oil and gas leases will be issued with stipulations that prohibit surface occupancy, as needed.
3. Locatable minerals will be regulated by 3809 Regulations. Mining activities will be guided by management goals.
4. Components of this management area may be evaluated for withdrawal from mineral entry.
5. Mineral material permits are not allowed where inconsistent with management goals.
6. Wildlife and fish habitat improvement projects may be permitted if consistent with management goals.
7. Commercial forest land is set aside.
8. Firewood collection will not be authorized unless consistent with management goals.
9. Roads will not be constructed for surface land management purposes unless needed to meet specific management goals. Roads will be permitted for mineral activities where construction is justified on the basis of mineral showings or data and where it is the next logical step in development of the mineral resource.
10. Developed recreation facilities, including campgrounds or picnic grounds, will not be constructed unless consistent with the primary goals of the area.
11. Trails and trailheads may be constructed or improved to increase accessibility, enhance dispersed recreation, and protect other resource values, if consistent with the goals of each special management area.
12. This area will generally be closed to motorized vehicle use. Exceptions may be permitted for snowmobile use.
13. Road closures may be possible, depending upon management objectives.
14. Management practices will follow guidelines for applicable Visual Resource Management Class.
15. Generally, these lands will remain in public ownership.
16. These lands will be avoidance areas for utility corridors.

## MANAGEMENT AREA 10: DEVELOPED AND UNDEVELOPED RECREATION SITES

### Description

Management Area 10 consists of existing and potential recreation use areas located throughout the resource area with developed, minimal, or no developed facilities to support a wide range of recreation activities.

### Management Goals

1. Maintain and enhance the present variety and quality of recreation sites to contribute to public enjoyment of the resource area.
2. Under the principles of sustained yield, manage suitable and available commercial forest land with operational restrictions to maintain or improve recreational opportunities and scenic quality.
3. Maintain site productivity, water quality, and stream stability.

### Management Guidelines

1. Livestock grazing generally will be permitted. However, there may be areas where grazing will not be permitted in order to meet management goals.
2. Oil and gas leases will be issued with standard stipulations and special stipulations as needed.
3. Generally, these lands are available for mineral location. Locatable minerals will be regulated by the 3809 Regulations. Mining activities will be guided by management goals.
4. Mineral material permits will generally not be issued.
5. Fire will not be used as a management tool in developed recreation sites.
6. Riparian areas not designated Management Area 1 or Management Area 2 will be recognized in activity plans, and Best Management Practices for the protection of water quality and riparian features will be applied. The width of the riparian influence zone will be determined on a site-specific basis.
7. Timber management activities will be designed to maintain or improve recreation opportunities and scenic quality.
8. Noncommercial forest land is available for wood product harvest on an unregulated basis. Generally, harvest will only occur when scheduled timber sales on adjacent commercial forest land provide an opportunity for sanitation or salvage, or when recreation and visual management goals require silvicultural treatment to obtain desired stand structure and composition.



9. Firewood collection will not be authorized unless compatible with management goals.
10. Complete disposal of thinning or timber harvest slash will be required to maintain scenic quality and recreation opportunities. Roads may be constructed as necessary to meet management goals.
12. Recreation developments may be permitted.
13. Management practices will follow guidelines for Visual Resource Management Class II or III.
14. Motorized vehicle use is restricted to open roads and trails. Exceptions may be permitted for snowmobile use.
15. These lands generally will remain in public ownership. However, exceptions may be permitted where exchanges would result in acquisition of lands with greater public values or when lands can be better managed by another agency.
16. These lands will be avoidance areas for utility corridors.

## MANAGEMENT AREA 11: HISTORICAL AND CULTURAL SITES

### Description

Management Area 11 consists of scattered sites within or adjacent to BLM-administered lands that are protected because of historical and cultural significance. These include Garnett, Coloma, Reynolds City, Copper Cliff, Blackfoot City, Beartown, Bearmouth, and other sites that are eligible for the National Register of Historic Places.

### Management Goal

Insure that eligible historical and cultural sites are preserved and protected.

### Management Guidelines

1. Livestock grazing generally will be permitted where compatible with maintaining historical values. However, there may be areas where grazing will not be permitted in order to meet management goals.
2. Oil and gas leases will be issued with standard stipulations and special stipulations as needed.
3. Withdrawals from mineral entry will be sought for these sites. Locatable minerals, where not withdrawn, will be regulated by 3809 Regulations. Mining activities will be guided by management goals.
4. Mineral material permits will not be issued.
5. Fire will not be used as a management tool.
6. Commercial forest land is set aside.
7. Noncommercial forest land is unavailable for wood product harvest.

8. Firewood collection will not be authorized unless compatible with management goals.

9. Road and trail construction will be permitted to provide public access and interpretive facilities to the extent that the historical and cultural values are not compromised.

10. Recreation will be limited to day use activities, unless provided for in special site direction. Recreation development is permitted, as necessary, for site protection and interpretation.

11. This area will generally be closed to motorized vehicle use. Exceptions may be permitted for snowmobile use.

12. Management practices will follow guidelines for retention and partial retention under Visual Resource Management Classes II and III. Areas where the visual quality objective is not being met will be rehabilitated.

13. Fire suppression methods will be selected to minimize or eliminate the impact on historical site values.

14. These lands generally will remain in public ownership. However, exceptions may be permitted where exchanges would result in acquisition of lands with greater public values or when lands can be better managed by another agency.

15. These lands will be avoidance areas for utility corridors.

## MANAGEMENT AREA 12: VISUAL CORRIDOR

[CODE G12]

### Description

Management Area 12 consists of lands with high visual sensitivity that are available for varying degrees of resource management. These lands are generally foreground and middle ground viewing areas from major travel and recreation corridors.

### Management Goals

1. Maintain or improve visual quality for highly sensitive, scenic areas.
2. Under the principles of sustained yield, manage suitable and available commercial forest land with operational restrictions to maintain or improve visual qualities.
3. Provide for dispersed recreational use opportunities, wildlife habitat, and livestock use within the constraints of Goal 1.
4. Maintain site productivity, water quality, and stream stability.

## Management Guidelines

1. Mitigation measures will be designed to protect the values associated with the highly sensitive areas as part of the environmental analysis process for projects within the foreground viewing area.
2. Livestock grazing generally will be permitted.
3. Oil and gas leases will be issued with standard stipulations and special stipulations as needed.
4. Locatable minerals will be regulated by 3809-Regulations. Mining activities will be guided by management goals.
5. Mineral material permits will be considered on a case-by-case basis and may be issued if consistent with visual quality objectives.
6. Wildfire suppression methods that maintain visual quality will be selected whenever possible.
7. Prescribed burning will be permitted to the extent consistent with visual quality objectives.
8. Range and wildlife improvements are generally allowed. To the extent possible they should blend with the natural surroundings and follow natural breaks.
9. Riparian areas not designated Management Area 1 or Management Area 2 will be recognized in activity plans, and Best Management Practices for the protection of water quality and riparian features will be applied. The width of the riparian influence zone will be determined on a site-specific basis.
10. Timber management activities will be designed to maintain or improve visual qualities.
11. Noncommercial forest land may be considered for wood product harvest only when scheduled timber sales on adjacent commercial forest land provide an opportunity for sanitation or salvage, or when multiple use management goals require silvicultural treatment or habitat improvement to obtain desired stand structure and composition.
12. Firewood collection generally will be authorized. Authorization may be restricted as needed to achieve management goals.
13. Roads shall be concealed by vegetation, if possible, and follow natural landforms. Cut and fill areas will be kept to a minimum.
14. A variety of dispersed recreation activities are permitted and may be supported by construction of trails and trailheads.
15. Motorized vehicle use will be restricted to open roads and trails. Exceptions may be permitted for snowmobile use.
16. Seasonal or yearlong road closures will be permitted to achieve management goals for Management Area 12 or for adjacent management areas.
17. Management practices will follow the guidelines for Visual Resource Management Class II or III.

[CODE G2] Slopes >40%

18. These lands may be available for exchange or sale. All proposals will be evaluated.

19. These lands may be available for consideration as utility corridors if compatible with management goals.

## ~~MANAGEMENT AREA 13~~ NONFOREST HABITAT

[CODE G13]

### Description

Management Area 13 is a grassland and shrubland complex with minor inclusions of forest. It includes wet meadows, dry parks, and open grassland and shrubland varying in size from a few to several hundred acres. These lands provide high wildlife and livestock forage values.

### Management Goals

1. Manage nonforest habitat to maintain and enhance forage for livestock and wildlife.
2. Maintain or enhance adjoining timber stands for wildlife cover.
3. Maintain site productivity, water quality, and stream stability.
4. Provide opportunities for a variety of dispersed recreation activities in a natural setting.

### Management Guidelines

1. Livestock grazing will generally be permitted. Where wildlife habitat is important, grazing will be regulated to maintain sufficient forage to meet established big game needs.
2. Oil and gas leases will be issued with standard stipulations.
3. These areas will be available for mineral production and will be regulated by 3809 Regulations. Mining activities will be guided by management goals.
4. Prescribed burning may be used to accomplish wildlife habitat and livestock forage objectives.
5. Riparian areas not designated Management Area 1 or Management Area 2 will be recognized in activity plans, and Best Management Practices for the protection of water quality and riparian features will be applied. The width of the riparian influence zone will be determined on a site-specific basis.
6. Generally, any forest inclusions in this management area are unsuitable and unavailable for timber production and are not included in the sustained yield timber production base.
7. Firewood collection opportunities generally will not be available on nonforest land.
8. Emphasis will be placed on locating roads away from meadows and parks.

# Montana State BLM

UNITED STATES DEPARTMENT OF THE INTERIOR  
 Bureau of Land Management  
 P. O. Box 36800  
 Billings, Montana 59107

(Serial Number)

OIL AND GAS LEASE STIPULATIONS

**ESTHETICS**--To maintain esthetic values, all surface-disturbing activities, semipermanent and permanent facilities may require special design including location, painting and camouflage to blend with the natural surroundings and meet the intent of the visual quality objectives of the Federal Surface Managing Agency (SMA).

**EROSION CONTROL**--Surface-disturbing activities may be prohibited during muddy and/or wet soil periods.

**CONTROLLED OR LIMITED SURFACE USE STIPULATION** --This stipulation may be modified, consistent with land use documents, when specifically approved in writing by the Bureau of Land Management (BLM) with concurrence of the SMA. Distances and/or time periods may be made less restrictive depending on the actual onground conditions. The prospective lessee should contact the SMA for more specific locations and information regarding the restrictive nature of this stipulation.

The lessee/operator is given notice that the lands within this lease may include special areas and that such areas may contain special values, may be needed for special purposes, or may require special attention to prevent damage to surface and/or other resources. Possible special areas are identified below. Any surface use or occupancy within such special areas will be strictly controlled, or if absolutely necessary, excluded. Use or occupancy will be restricted only when the BLM and/or the SMA demonstrates the restriction necessary for the protection of such special areas and existing or planned uses. Appropriate modifications to imposed restrictions will be made for the maintenance and operations of producing oil and gas wells.

After the SMA has been advised of specific proposed surface use or occupancy on the leased lands, and on request of the lessee/operator, the Agency will furnish further data on any special areas which may include:

100 feet from the edge of the rights-of-way from highways, designated county roads and appropriate federally-owned or controlled roads and recreation trails.

500 feet, or when necessary, within the 25-year flood plain from reservoirs, lakes, and ponds and intermittent, ephemeral or small perennial streams: 1,000 feet, or when necessary, within the 100-year flood plain from larger perennial streams, rivers, and domestic water supplies.

500 feet from grouse strutting grounds. Special care to avoid nesting areas associated with strutting grounds will be necessary during the period from March 1, to June 30. One-fourth mile from identified essential habitat of state and federal sensitive species. Crucial wildlife winter ranges during the period from December 1 to May 15, and in elk calving areas during the period from May 1 to June 30.

300 feet from occupied buildings, developed recreational areas, undeveloped recreational areas receiving concentrated public use and sites eligible for or designated as National Register sites.

Seasonal road closures, roads for special uses, specified roads during heavy traffic periods and on areas having restrictive off-road vehicle designations.

[CODE MSS12] On slopes over 30 percent or 20 percent on extremely erodible or slumping soils.

Standard (9/1998)

See Notica on Back

## NOTICE

**APPLICATIONS FOR PERMIT TO DRILL (APDs)**--The BLM district or resource area offices are responsible for the receipt, processing, and approval of APDs. The APDs are to be submitted by oil and gas operators pursuant to the requirements found in Onshore Oil and Gas Order No. 1 -- Approval of Operations on Onshore Federal and Indian Oil and Gas Leases (Circular No. 2538). Additional requirements for the conduct of oil and gas operations on federal oil and gas leases can be found in Code of Federal Regulations Title 43, Part 3160. Copies of Onshore Oil and Gas Order No. 1, and pertinent regulations, can be obtained from the BLM district offices in which the operations are proposed. Early coordination with these offices on proposals is encouraged.

**CULTURAL AND PALEONTOLOGICAL RESOURCES**--The SMA is responsible for assuring that the leased lands are examined to determine if cultural resources are present and to specify mitigation measures. Prior to undertaking any surface-disturbing activities on the lands covered by this lease, the lessee or operator, unless notified to the contrary by the SMA, shall:

1. Contact the appropriate SMA to determine if a site-specific cultural resource inventory is required. If an inventory is required, then:
2. Engage the services of a cultural resource specialist acceptable to the SMA to conduct a cultural resource inventory of the area of proposed surface disturbance. The operator may elect to inventory an area larger than the area of proposed disturbance to cover possible site relocation which may result from environmental or other considerations. An acceptable inventory report is to be submitted to the SMA for review and approval no later than that time when an otherwise complete application for approval of drilling or subsequent surface-disturbing operation is submitted.
3. Implement mitigation measures required by the SMA. Mitigation may include the relocation of proposed lease-related activities or other protective measures such as testing salvage and recordation. Where impacts to cultural resources cannot be mitigated to the satisfaction of the SMA, surface occupancy on that area must be prohibited.

The lessee or operator shall immediately bring to the attention of the SMA any cultural or paleontological resources discovered as a result of approved operations under this lease, and not disturb such discoveries until directed to proceed by the SMA.

**ENDANGERED OR THREATENED SPECIES**--The SMA is responsible for assuring that the leased land is examined prior to undertaking any surface-disturbing activities to determine effects upon any plant or animal species, listed or proposed for listing as endangered or threatened, or their habitats. The findings of this examination may result in some restrictions to the operator's plans or even disallow use and occupancy that would be in violation of the Endangered Species Act of 1973 by detrimentally affecting endangered or threatened species or their habitats.

The lessee/operator may, unless notified by the authorized officer of the SMA that the examination is not necessary, conduct the examination on the leased lands at his discretion and cost. This examination must be done by or under the supervision of a qualified resources specialist approved by the SMA. An acceptable report must be provided to the SMA identifying the anticipated effects of a proposed action on endangered or threatened species or their habitats.

Nebraska National Forest and Oglala &  
Buffalo Gap National Grasslands

# APPENDIX D OIL AND GAS STIPULATIONS OGLALA AND BUFFALO GAP NATIONAL GRASSLANDS

## INTRODUCTION

This appendix displays the stipulations applied to oil and gas leases to be consistent with Forest Plan Standards and Guidelines, and a short explanation of the reasons for the stipulations. This is mandated by the oil and gas regulations found in 36 CFR 228.102 (c)(1)(ii). This section also discusses the guidelines by which waivers, exceptions, or modifications may be granted.

Waivers, exceptions, or modifications will be considered in accordance with the requirements of 36 CFR 228.104. Environmental analysis meeting NEPA requirements will be conducted in considering a request for a waiver, exception or modification. The Deciding Officer will make a determination based on this information.

All the following stipulations are consistent with and necessary to implement the land and resource management plan.

## DEFINITION OF TERMS

- Stipulation: A provision that modifies standard lease rights and is attached to and made a part of the lease. Stipulations have been developed for the categories of: 1) No Surface Occupancy, 2) Timing Limitations or seasonal restrictions, and 3) Controlled Surface Use.
- No Surface Occupancy (NSO): Use or occupancy of the land surface for fluid mineral exploration or development is prohibited to protect identified resource values.
- Timing Limitation (TL) (Seasonal Restriction): Prohibits surface use during specified time periods to protect identified resource values. This stipulation does not apply to the operation and maintenance of production facilities unless the findings of analysis demonstrate the continued need for such mitigation and that less stringent, project-specific mitigation measures would be insufficient.
- Controlled Surface Use (CSU): Use and occupancy is allowed (unless restricted by another stipulation), but identified resource values require special operational constraints that may modify the lease rights. CSU is used for operating guidance, not as a substitute for NSO or Timing stipulations.
- Lease Notice: Provides more detailed information concerning limitations that already exist in law, lease terms, regulations, or operational orders. A Lease Notice also addresses special items the lessee should consider when planning operations, but does not impose new or additional restrictions.
- Waiver (oil and gas leasing): Permanent exemption from a lease stipulation. Waivers can be granted if the condition described in the stipulation no longer applies anywhere in the leasehold.

## Appendix D

### Definition of Terms, cont.

- Exception (oil and gas leasing) : Case-by-case exemption from a lease stipulation. The stipulation continues to apply to all other sites within the leasehold to which the restrictive criteria apply.
- Modification (oil and gas leasing) : Modifications are similar to exceptions, but broader in scope, and involve a fundamental change to the provisions of the stipulation. They can be granted either temporarily or for the duration of the lease. A modification may, therefore, include an exemption from or alteration to a stipulated requirement. Depending on the specific modification, the stipulation may or may not apply to all other sites within the leasehold to which the restrictive criteria applied.

## WATER, WETLANDS, WOODY DRAWS, RIPARIAN, AND FLOODPLAINS

### Controlled Surface Use (CSU)

Resource: Water, Wetlands, Woody Draws, Riparian, and Floodplains (CSU)(see Appendix G for definitions)

#### Stipulation

Try to locate activities and facilities away from the water's edge and outside the riparian areas, woody draws, wetlands, and floodplains. If necessary to locate facilities in these areas, then:

- Deposit no waste material (silt, sand, gravel, soil, slash, debris, chemical or other material) below high water lines, in riparian areas, in the areas immediately adjacent to riparian areas or in natural drainageways (draws, land surface depressions or other areas where overland flow concentrates and flows directly into streams or lakes).
- Deposit no soil material in natural drainageways.
- Locate the lower edge of disturbed or deposited soil banks outside the active floodplain.
- Stockpile no topsoil or any other disturbed soil in the active floodplain.
- Locate drilling mud pits outside riparian areas, wetlands and floodplains. If location is unavoidable in these areas, seal and dike all pits to prevent leakage or use containerized mud systems.

#### Objective (Justification)

For justification refer to the Land and Resource Management Plan Grassland-wide Direction, Water, number 14. This stipulation is to protect the biological and hydrologic features of riparian areas, woody draws, wetlands, and floodplains.

#### Application Methodology,

Use this stipulation in riparian areas, woody draws, wetlands, and floodplains that are greater than 400 meters wide. 43 CFR 3101.1-2 includes measures to relocate operations up to 200 meters and to delay operations up to 60 days in any lease year. Therefore use Standard Lease Terms for areas less than 200 meters from edge.



#### Waivers

This stipulation may be waived if the authorized officer determines the entire leasehold no longer contains any riparian areas, woody draws, wetlands, or floodplains.

#### Exceptions

The authorizing officer may grant an exception to this stipulation if the operator submits a plan that demonstrates impacts from the proposed action are acceptable or can be adequately mitigated.

#### Modifications

The boundaries of the stipulated area may be modified if the authorized officer determines that portions of the area do not include riparian areas, woody draws, wetlands, and floodplains.

### [CODE NOB2] SOILS

#### No Surface Occupancy (NSO)

##### Resource: Slopes Greater than 40 Percent (NSO)

##### Stipulation

Surface occupancy and use is prohibited on slopes greater than 40 percent.

##### Objective (Justification)

For justification refer to the Land and Resource Management Plan Grassland-wide Direction, Soils, number 4. The objective of this stipulation is to protect soil resources from loss of productivity, prevent erosion on steep slopes, soil mass movement, and resultant sedimentation.

##### Application Methodology

Use this stipulation on slopes greater than 40 percent.

##### Waivers

This stipulation may be waived if the authorized officer determines conditions have changed and the entire leasehold no longer contains any slopes greater than 40 percent.

##### Exceptions

The authorizing officer may grant an exception to this stipulation if the operator submits a plan that demonstrates impacts from the proposed action are acceptable or can be adequately mitigated.

##### Modifications

The boundaries of the stipulated area may be modified if the authorizing officer determines that portions of the area do not include slopes greater than 40 percent.

## Appendix D

### Resource: Slopes Between 25 - 40 Percent (NSO) [CODE NOB3]

#### Stipulation

Surface occupancy and use is prohibited on slopes between 25 - 40 percent with either highly erodible soils or soils susceptible to mass failure.

#### Objective (Justification)

For justification refer to the Land and Resource Management Plan Grassland-wide Direction, Soils, Number 4. The objective of this stipulation is to protect soil resources from loss of productivity, prevent erosion on steep slopes, soil mass movement, and resultant sedimentation.

#### Application Methodology

This stipulation applies to slopes between 25 and 40 percent with either highly erodible soils or soils susceptible to mass movement. This stipulation will not apply to those areas of slopes between 25 - 40 percent where it is determined there are no highly erodible soils, or soils susceptible to mass failure.

#### Waivers

This stipulation may be waived if the authorized officer determines conditions have changed and the entire leasehold no longer contains any highly erodible soils or soils susceptible to mass failure on slopes between 25 to 40 percent in the leasehold.

#### Exceptions

The authorizing officer may grant an exception to this stipulation if the operator submits a plan that demonstrates impacts from the proposed action are acceptable or can be adequately mitigated.

#### Modifications

The boundaries of the stipulated area may be modified if the authorizing officer determines that portions of the area do not include slopes between 25 to 40 percent with highly erodible soils or soils susceptible to mass failure.

## RECREATION

### No Surface Occupancy (NSO)

#### Resource: Developed Recreation Sites (NSO)

#### Stipulation

No surface occupancy or use is allowed within developed recreation sites.

#### Objective (Justification)

For justification refer to the Land and Resource Management Plan Grassland-wide Direction, Recreation, Developed Recreation Sites, Number 9. The objective is to maintain the recreation opportunities and settings within developed recreation sites

#### Application Methodology

Use this stipulation in developed recreation sites.

#### Waivers

This stipulation may be waived if the authorized officer determines conditions have changed and the entire leasehold no longer contains developed recreation sites.

#### Exceptions

The authorizing officer may grant an exception to this stipulation if the operator submits a plan that demonstrates impacts from the proposed action are acceptable or can be adequately mitigated.

#### Modifications

The boundaries of the stipulated area may be modified if the authorizing officer determines that portions of the area do not include developed recreation sites.

## PALEONTOLOGY

### Controlled Surface Use (CSU)

#### Resource: Fossils (CSU)

#### Stipulation

Prior to undertaking any surface-disturbing activities on the lands covered by this lease, the lessee or operator, unless notified to the contrary by the Forest Service, shall:

- Contact the Forest Service to determine if a site-specific vertebrate paleontological inventory is required. The Forest Service will conduct inventories and surveys as part of the field review for the proposed activity on the lease. The operator may voluntarily engage the services of a qualified paleontologist to conduct the inventory.
- Implement mitigation measures required by the Forest Service and Bureau of Land Management to preserve or avoid destruction of vertebrate paleontological resources. Mitigation may include relocation of proposed facilities or other protective measures.
- The lessee or operator shall bring to the attention of the Forest Service any vertebrate paleontologic resources discovered as a result of surface operation under this lease, and shall leave such discoveries intact until directed to proceed by the Forest Service.

#### Objective (Justification)

For justification refer to the Land and Resource Management Plan Grassland-wide Direction, Paleontological Resources, numbers 1 and 3. The objective is to protect fossils and immediate environment of the site, including inherent scientific, natural historic, interpretive, educational, and recreational values for the area potentially impacted.

#### Application Methodology

Use this stipulation for Class 3, 4, and 5 formations as described in Appendix J. The predevelopment survey protocol is described in Appendix J.

## Appendix D

### Waivers

No conditions for a waiver are anticipated, and approval of a waiver would be unlikely.

### Exceptions

The authorizing officer may grant an exception to this stipulation if the operator submits a plan that demonstrates impacts from the proposed action are acceptable or can be adequately mitigated.

### Modifications

The boundaries of the stipulated area may be modified if the authorizing officer determines that portions of the area do not include significant fossils as described in Appendix J and FSM 2883.

## WILDLIFE

Wildlife stipulations are listed in the order of Timing Limitations, Controlled Surface Use, and No Surface Occupancy.

### Wildlife - Timing Limitations (TL) [CODE NOB6]

Resource: Ferruginous Hawk and Swainson's Hawk Nests (TL)

#### Stipulation

Surface use is prohibited from March 1 through July 31 within 0.50 miles (line of sight) of ferruginous and Swainson's hawk nests.

#### Objective (Justification)

For justification refer to the Land and Resource Management Plan Grassland-wide Direction, Fish, Wildlife and Rare Plants, number 52. The objective is to prevent reduced reproductive success.

#### Application Methodology

This stipulation applies to active ferruginous and Swainson's hawk nest. This stipulation applies to drilling, testing, new construction projects, and to workover operations. This does not apply to emergency repairs.

#### Waiver

This stipulation may be waived if the authorized officer determines conditions have changed and all nests within the leasehold or within the stipulated distance from the leasehold are known to have been unoccupied during each of the previous 7 years.

#### Exceptions

The authorizing officer may grant an exception to this stipulation if the operator submits a plan that demonstrates impacts from the proposed action are acceptable, can be adequately mitigated, or if all nests within the leasehold or within the stipulated distance from the leasehold are known to have been unoccupied during each of the previous 7 years.

#### Modifications

The boundaries of the stipulated area may be modified if the authorizing officer determines that portions of the area include nests or nest site(s) known to have been unoccupied during each of the previous 7 years.

#### Resource: Golden Eagle Nests (TL)

##### Stipulation

Surface use is prohibited from February 1 through July 31 within 0.50 miles (line of sight) of golden eagle nests.

##### Objective (Justification)

For justification refer to the Land and Resource Management Plan Grassland-wide Direction, Fish, Wildlife and Rare Plants, number 52. The objective is to prevent reduced reproductive success.

##### Application Methodology

This stipulation applies to active golden eagle nest. This stipulation applies to drilling, testing, new construction projects, and to workover operations. This does not apply to emergency repairs.

##### Waiver

This stipulation may be waived if the authorized officer determines conditions have changed and all nests within the leasehold or within the stipulated distance from the leasehold are known to have been unoccupied during each of the previous 7 years.

##### Exceptions

The authorizing officer may grant an exception to this stipulation if the operator submits a plan that demonstrates impacts from the proposed action are acceptable, can be adequately mitigated, or if all nests within the leasehold or within the stipulated distance from the leasehold are known to have been unoccupied during each of the previous 7 years.

#### Modifications

The boundaries of the stipulated area may be modified if the authorizing officer determines that portions of the area include nests or nest site(s) known to have been unoccupied during each of the previous 7 years.

#### Resource: Merlin Nests (TL)

##### Stipulation

Surface use is prohibited from April 1 through August 15 within 0.50 miles (line of sight) of merlin nests.

##### Objective (Justification)

For justification refer to the Land and Resource Management Plan Grassland-wide Direction, Fish, Wildlife and Rare Plants, number 52. The objective is to prevent reduced reproductive success.

## Appendix D

### Application Methodology

This stipulation applies to active merlin nests. This stipulation applies to drilling, testing, new construction projects, and to workover operations. This does not apply to emergency repairs.

### Waivers

This stipulation may be waived if the authorized officer determines conditions have changed and all nests within the leasehold or within the stipulated distance from the leasehold are known to have been unoccupied during each of the previous 7 years.

### Exceptions

The authorizing officer may grant an exception to this stipulation if the operator submits a plan that demonstrates impacts from the proposed action are acceptable or can be adequately mitigated. An exception may be granted for periodic maintenance including work-over rigs if a nest is unoccupied within the current year after May 30.

### Modifications

The boundaries of the stipulated area may be modified if the authorizing officer determines that portions of the area include nests or nest site(s) known to have been unoccupied during each of the previous 7 years.

## Resource: Sharp-tailed Grouse Display Grounds (TL)

### Stipulation

Surface use is prohibited from March 1 through June 15 within 1 mile (line of sight) of a sharp-tailed grouse display ground.

### Objective (Justification)

For justification refer to the Land and Resource Management Plan Grassland-wide Direction, Fish, Wildlife and Rare Plants, number 15. The objective is to prevent abandonment of display grounds and reduced reproductive success.

### Application Methodology

This stipulation applies to active sharp-tailed grouse display grounds. The 1 mile radius extends outward from the center of a display ground. This stipulation applies to drilling, testing, new construction projects, and to workover operations. This does not apply to emergency repairs.

### Waivers

This stipulation may be waived if the authorized officer determines conditions have changed and all display grounds within the leasehold or within the stipulated distance from the leasehold have not been used during the past 2 breeding seasons.

### Exceptions

The authorizing officer may grant an exception to this stipulation if the operator submits a plan that demonstrates impacts from the proposed action are acceptable or can be adequately mitigated. An exception may be granted if the display ground has not been used by May 1 of the current year.

#### Modifications

The boundaries of the stipulated area may be modified if the authorizing officer determines that portions of the area do not include display grounds that have been used during the last 2 breeding seasons.

### [CODE NOB10] Resource: Sage Grouse Display Grounds (TL)

#### Stipulation

Surface use is prohibited from March 1 through June 15 within 2 miles (line of sight) of a sage grouse display ground, and noise from production facilities must not exceed 49 decibels (10 dBA above background noise) at the display ground.

#### Objective (Justification)

For justification refer to the Land and Resource Management Plan Fall River West Geographic Areas, Wildlife, Fish and Rare Plants, number 1. The objective is to prevent abandonment of display grounds and reduced reproductive success.

#### Application Methodology

This stipulation applies to active sage grouse display grounds. The 2 mile radius extends outward from the center of a display ground. This stipulation applies to drilling, testing, new construction projects, and to workover operations. This does not apply to emergency repairs.

#### Waivers

This stipulation may be waived if the authorized officer determines conditions have changed and all display grounds within the leasehold or within the stipulated distance from the leasehold have not been used during the past 5 breeding seasons.

#### Exceptions

The authorizing officer may grant an exception to this stipulation if the operator submits a plan that demonstrates impacts from the proposed action are acceptable or can be adequately mitigated. An exception may be granted if the display ground has not been used by May 1 of the current year.

#### Modifications

The boundaries of the stipulated area may be modified if the authorizing officer determines that portions of the area do not include any display grounds that have been used during the past 5 breeding seasons.

### Resource: Mountain Plover (TL)

#### Stipulation

Surface use is prohibited from March 15 through July 31 within 0.25 miles (line of sight) of a mountain plover nests or nest aggregation areas.

## Appendix D

### Objective (Justification)

For justification refer to the Land and Resource Management Plan, Fall River West Geographic Area Direction, Wildlife, Fish and Rare Plants, number 2. The objective is to prevent reduced reproductive success.

### Application Methodology

This stipulation applies to mountain plover nests and nest aggregation areas, if mountain plovers begin nesting on the Buffalo Gap or Oglala National Grasslands. This stipulation applies to drilling, testing, new construction projects, and to workover operations. This does not apply to emergency repairs.

### Waivers

This stipulation may be waived if the authorized officer determines conditions have changed and there are no nests or nest aggregation areas within the leasehold or within the stipulated distance from the leasehold.

### Exceptions

The authorizing officer may grant an exception to this stipulation if the operator submits a plan that demonstrates impacts from the proposed action are acceptable or can be adequately mitigated. An exception may be granted if the nest or nest aggregation area has not been used by June 10 of the current year.

### Modifications

The boundaries of the stipulated area may be modified if the authorizing officer determines that portions of the area do not include mountain plover nests and nesting areas.

## Resource: Black-footed Ferret Habitat (TL)

### Stipulation

Surface use is prohibited from March 1 through August 31 within 0.125 mile (line of sight) of prairie dog colonies occupied or thought to be occupied by black-footed ferrets.

### Objective (Justification)

For justification refer to the Land and Resource Management Plan Grassland-wide Direction, Fish, Wildlife and Rare Plants, number 19. The objective is to protect ferrets when breeding and rearing young.

### Application Methodology

This stipulation applies to prairie dog colonies occupied by black-footed ferrets. The spatial buffer extends out from the outer boundary of a prairie dog colony occupied by black-footed ferrets. This stipulation applies to drilling and testing and new construction projects, not to operation or maintenance of production facilities.



#### Waivers

The authorized officer may grant a waiver if ferret surveys, following protocol approved by the U.S. Fish, Wildlife and Rare Plants Service, indicate a low probability that ferrets occur in prairie dog colonies located in the leasehold, or if the U.S. Fish, Wildlife and Rare Plants Service determines that black-footed ferrets do not occur in the area. Currently, there are no prairie dog colonies occupied by black-footed ferrets that are outside MA 3.63. This stipulation will be applied if black-footed ferret populations expand outside MA 3.63.

#### Exceptions

The authorizing officer may grant an exception to this stipulation if the operator submits a plan that demonstrates impacts from the proposed action are acceptable or can be adequately mitigated. An exception may be granted if surveys indicate a low probability that ferrets occur in a prairie dog colony where drilling, testing or new construction is proposed.

#### Modifications

The boundaries of the stipulated area may be modified if the authorizing officer determines that black-footed ferrets do not occur in portions of the area.

### Resource: Swift Fox Dens (TL)

#### Stipulation

Surface use is prohibited from March 1 through July 31 within 0.25 mile (line of sight) of swift fox dens.

#### Objective (Justification)

For justification refer to the Land and Resource Management Plan Grassland-wide Direction, Fish, Wildlife and Rare Plants, number 45. The objective is to prevent den abandonment and reduced reproductive.

#### Application Methodology

This stipulation applies to swift fox den sites. This stipulation applies to drilling and testing and new construction projects, not to operation or maintenance of production facilities.

#### Waivers

This stipulation may be waived if the authorized officer determines conditions have changed and there are no dens within the leasehold or within the stipulated distance from the leasehold.

#### Exceptions

The authorizing officer may grant an exception to this stipulation if the operator submits a plan that demonstrates impacts from the proposed action are acceptable or can be adequately mitigated.

#### Modifications

The boundaries of the stipulated area may be modified if the authorizing officer determines that portions of the area do not include swift fox dens.

## Appendix D

### Wildlife - Controlled Surface Use (CSU)

#### Resource: Black-footed Ferret Habitat (CSU)

##### Stipulation

Operations in prairie dog colonies known or thought to be occupied by black-footed ferrets are subject to the following constraints:

- Limit oil and gas development to no more than one location per 80 acres.
- Suitable black-footed ferret habitat lost as a result of new facilities within prairie dog colonies must be replaced within 1 year.
- Access for routine maintenance of oil and gas facilities in prairie dog colonies is limited to daylight hours. This does not apply to emergency repairs.
- If it's necessary to place a new road in a prairie dog colony, align the road to minimize habitat loss.

##### Objective (Justification)

For justification refer to the Land and Resource Management Plan Grassland-wide Direction, Fish, Wildlife and Rare Plants, number 18, 21, and 22, and Management Area 3.63, General, number 1, and 2. The objective is to protect against activities that could result in adverse impacts on black-footed ferrets or ferret recovery objectives.

##### Application Methodology

This stipulation applies to prairie dog colonies occupied by black-footed ferrets outside Management Area 3.63. Currently, there are no prairie dog colonies occupied by black-footed ferrets that are outside MA 3.63. This stipulation will be applied if black-footed ferret populations expand outside MA 3.63.

##### Waivers

The authorized officer may waive this stipulation if black-footed ferrets are released under an experimental non-essential population status; this stipulation may be waived for areas inside the experimental population area but outside Management Area 3.63.

##### Exceptions

No conditions for an exception are anticipated, and approval of an exception is unlikely.

##### Modifications

No conditions for a modification are anticipated, and approval of a modification is unlikely.

## Resource: Mountain Plover Habitat (CSU)

### Stipulation

Operations in mountain plover nesting and brooding habitat are subject to the following constraints:

- Limit oil and gas development to no more than one location per 80 acres.
- Suitable mountain plover habitat lost as a result of new facilities must be replaced within 1 year.
- Access for routine maintenance of oil and gas facilities in mountain plover nesting and brooding habitat will be between 9 am and 5 pm. This does not apply to emergency repairs.
- If it's necessary to place a new road in a prairie dog colony, align the road to minimize habitat loss.

### Objective (Justification)

For justification refer to the Land and Resource Management Plan, Geographic Area Direction, Fall River West, Wildlife Fish and Rare Plants, number 2. The objective is to prevent reductions in reproductive success.

### Application Methodology

This stipulation applies to mountain plover nesting and brooding habitat, if mountain plovers begin nesting and brooding on the Buffalo Gap or Oglala National Grasslands. Multiple facilities concentrated at a site are allowed.

### Waivers

No conditions for a waiver are anticipated, and approval of a waiver would be unlikely.

### Exceptions

No conditions for an exception are anticipated, and approval of an exception would be unlikely.

### Modifications

The boundary of the stipulated area may be modified if the authorizing officer determines that portions or the area do not contain active prairie-dog colonies.

## Wildlife - No Surface Occupancy (NSO)

### Resource: Mountain Plover Nests and Nesting Areas (NSO)

#### Stipulation

No surface occupancy or use is allowed within 0.25 miles of known mountain plover nests or nesting areas.

#### Objective (Justification)

For justification refer to the Land and Resource Management Plan, Fall River West, Wildlife, Fish and Rare Plants, number 2. The objective is to prevent reduced reproductive success and adverse habitat loss.

## Appendix D

### Application Methodology

This stipulation applies to mountain plover nests or nesting areas if nests or nesting areas are established on the Oglala or Buffalo Gap National Grasslands.

### Waivers

No conditions for a waiver are anticipated, and approval of a waiver would be unlikely.

### Exceptions

No conditions for an exception are anticipated, and approval of an exception would be unlikely.

### Modifications

The boundary of the stipulated area may be modified if the authorizing officer determines that portions or the area do not contain mountain plover nests or nesting areas.

## Resource: Bald Eagle Nests (NSO)

### Stipulation

No surface occupancy or use is allowed within 1.0 mile (line of sight) of bald eagle nests.

### Objective (Justification)

For justification refer to the Land and Resource Management Plan Grassland-wide Direction, Fish, Wildlife and Rare Plants, number 51. The objective is to prevent reduced reproductive success and adverse habitat loss.

### Application Methodology

This stipulation applies to active bald eagle nests.

### Waivers

This stipulation may be waived if the authorized officer determines conditions have changed and all nests within the leasehold or within the stipulated distance from the leasehold are known to have been unoccupied during each of the previous 7 years.

### Exceptions

The authorizing officer may grant an exception to this stipulation if the operator submits a plan that demonstrates impacts from the proposed action are acceptable or can be adequately mitigated.

### Modifications

The boundaries of the stipulated area may be modified if the authorizing officer determines that portions of the area include nests or nest site(s) known to have been unoccupied during each of the previous 7 years. The boundary of the stipulated area may also be modified if the authorized officer determines that portions of the area can be occupied without adversely affecting the eagles.

### Resource: Bald Eagle Winter Roosts (NSO)

#### Stipulation

No surface occupancy or use is allowed within 1.0 mile (line of sight) of bald eagle roosting areas.

#### Objective (Justification)

For justification refer to the Land and Resource Management Plan Grassland-wide Direction, Fish, Wildlife and Rare Plants, number 51. The objective is to prevent adverse impacts on wintering and migrating bald eagles.

#### Application Methodology

This stipulation applies to bald eagle roosting areas.

#### Waivers

This stipulation may be waived if the authorized officer determines conditions have changed and winter roosting areas are no longer used within the leasehold or within the stipulated distance from the leasehold.

#### Exceptions

The authorizing officer may grant an exception to this stipulation if the operator submits a plan that demonstrates impacts from the proposed action are acceptable or can be adequately mitigated.

#### Modifications

The boundaries of the stipulated area may be modified if the authorizing officer determines that portions of the area do not include winter roosting areas. The boundary of the stipulated area may also be modified if the authorized officer determines that portions of the area can be occupied without adversely affecting the eagles.

### Resource: Golden Eagle, Merlin, Ferruginous Hawk, Swainson's Hawk, and Burrowing Owl Nests (NSO)

#### Stipulation

No surface occupancy or use is allowed within 0.25 mile (line of sight) of golden eagle, merlin, ferruginous hawk, Swainson's hawk, or burrowing owl nests.

#### Objective (Justification)

For justification refer to the Land and Resource Management Plan Grassland-wide Direction, Fish, Wildlife and Rare Plants, number 51. The objective is to prevent reduced reproductive success and adverse habitat loss.

#### Application Methodology

This stipulation applies to active golden eagle, merlin, ferruginous hawk, Swainson's hawk, or burrowing owl nests.

## Appendix D

### Waivers

This stipulation may be waived if the authorized officer determines conditions have changed and all nests within the leasehold or within the stipulated distance from the leasehold are known to have been unoccupied during each of the previous 7 years.

### Exceptions

The authorizing officer may grant an exception to this stipulation if the operator submits a plan that demonstrates impacts from the proposed action are acceptable or can be adequately mitigated.

### Modifications

The boundaries of the stipulated area may be modified if the authorizing officer determines that portions of the area include nests or nest site(s) known to have been unoccupied during each of the previous 7 years. The boundary of the stipulated area may also be modified if the authorized officer determines that portions of the area can be occupied without adversely affecting these raptors.

## Resource: Sharp-tailed Grouse and Sage Grouse Display Grounds (NSO)

### Stipulation

No surface occupancy or use is allowed within 0.25 mile (line of sight) of a sharp-tailed grouse or sage grouse display ground.

### Objective (Justification)

For justification refer to the Land and Resource Management Plan Grassland-wide Direction Fish, Wildlife and Rare Plants, number 14. The objective is to prevent abandonment of display grounds, reduced reproductive success, and adverse habitat loss.

### Application Methodology

This stipulation applies to active sharp-tailed grouse or sage grouse display grounds. The 0.25-mile radius extends outward from the center of a display ground.

### Waivers

This stipulation may be waived if the authorized officer determines conditions have changed and all display grounds within the leasehold or within the stipulated distance of the leasehold have not been used during the last 2 breeding seasons (sharp-tailed grouse) or 5 breeding seasons (sage grouse).

### Exceptions

The authorizing officer may grant an exception to this stipulation if the operator submits a plan that demonstrates impacts from the proposed action are acceptable or can be adequately mitigated.

#### Modifications

The boundaries of the stipulated area may be modified if the authorizing officer determines that portions of the area do not include any display grounds that have been used during the last 2 breeding seasons (sharp-tailed grouse) or 5 breeding seasons (sage grouse). The boundary of the stipulated area may also be modified if the authorized officer determines that portions of the area can be occupied without adversely affecting sage grouse and the display grounds.

### [CODE NOB21] SCENERY MANAGEMENT

#### High Scenic Integrity Objective (SIO) Areas

#### Controlled Surface Use (CSU)

Resource: Scenery (CSU)

#### Stipulation

Surface occupancy and use is subject to operational constraints to maintain the landscape character intact. Deviations may be present but must repeat the form, line, color, texture, and pattern common to the landscape character so completely and to such scale that they are not evident.

#### Objective (Justification)

For justification refer to the Land and Resource Management Plan Grassland-wide Direction, Scenery Management, number 1. The objective is to maintain the Scenic Integrity Objective (SIO) for areas identified as high.

#### Application Methodology

Use this stipulation on areas identified as high on the adopted SIO map. Operational constraints may include utilizing topographic/vegetative screening, matching color tones of facilities with surrounding topographic features, orienting the well pad/facilities, redesigning production facilities to such scale that they may not be evident, or placing facilities outside the high SIO area.

#### Waivers

No conditions for a waiver are anticipated, and approval of a waiver is unlikely.

#### Exceptions

No conditions for an exception are anticipated, and approval of an exception is unlikely.

#### Modifications

The boundaries of the stipulated area may be modified if the authorizing officer determines that portions of the area do not include high SIO areas.

## Appendix D

### Moderate Scenic Integrity Objective (SIO) Areas [CODE NOB22]

#### Controlled Surface Use (CSU)

Resource: Scenery (CSU)

#### Stipulation

Surface occupancy and use is subject to operational constraints to maintain a landscape character that is no more than slightly altered. Noticeable deviations must remain visually subordinate to the landscape character being viewed.

#### Objective (Justification)

For justification refer to the Land and Resource Management Plan Grassland-wide Direction, Scenery Management, number 1. The objective is to maintain the scenic integrity objective (SIO) for areas identified as moderate.

#### Application Methodology

Use this stipulation on areas identified as moderate on the adopted SIO map. Operational constraints may include utilizing vegetative/vegetative screening, matching color tones of facilities with surrounding topographic features, orienting the well pad/facilities, redesigning production facilities to such scale that they are visually subordinate to the landscape, or placing facilities outside the moderate SIO area.

#### Waivers

No conditions for a waiver are anticipated, and approval of a waiver is unlikely.

#### Exceptions

No conditions for an exception are anticipated, and approval of an exception is unlikely.

#### Modifications

The boundaries of the stipulated area may be modified if the authorizing officer determines that portions of the area do not include moderate SIO areas.

## MANAGEMENT AREA PRESCRIPT IONS

### MA 2.1 Special Interest Area – Archeological Resources

#### No Surface Occupancy (NSO)

Resource: Hudson-Meng Bison Bonebed and Warbonnet/Yellowhand  
Archeological Sites (NSO)

#### Stipulation

No surface occupancy or use is allowed within the boundaries of Hudson-Meng Bison Bonebed and Warbonnet/Yellowhand SIAs



Objective (Justification)

For justification refer to the Land and Resource Management Plan Management Area Direction, MA 2.1, Hudson-Meng Bison Bonebed (2.1i) and Warbonnet/Yellowhand (2.1m) Special Interest Areas (SIAs). The objective is to protect the heritage resources.

Application Methodology

Use this stipulation in Management Area 2.1 SIAs, Hudson-Meng Bison Bonebed and Warbonnet/Yellowhand.

Waivers

No conditions for a waiver are anticipated, and approval of a waiver would be unlikely.

Exceptions

No conditions for an exception are anticipated, and approval of an exception would be unlikely.

Modifications

No conditions for a modification are anticipated, and approval of a modification would be unlikely.

## MA 2.1 Special Interest Area – Paleontology and Geological Resources

### Controlled Surface Use (CSU)

Resource: Edgemont Shark Locality, Marietta South, One-Mile Hill, and Wallace Ranch Localities (CSU)

Stipulation

Operations may be moved or modified to avoid disturbance to significant fossil resources.

Objective (Justification)

For justification refer to the Land and Resource Management Plan Management Area Direction, MA 2.1, Edgemont Shark Locality (2.1c), Marietta South (2.1d), One-Mile Hill (2.1d), and Wallace Ranch Localities (2.1f) Special Interest Areas (SIAs). The objective is to protect fossils and immediate environment of the site, including inherent scientific, natural historic, interpretive, educational, and recreational values for the area potentially impacted.

Application Methodology

Use this stipulation in Management Area 2.1 SIAs, Edgemont Shark Locality, Marietta South, One-Mile Hill, Wallace Ranch Localities, and Indian Creek.

Waivers

No conditions for a waiver are anticipated, and approval of a waiver would be unlikely.

Exceptions

No conditions for an exception are anticipated, and approval of an exception would be unlikely.

## Appendix D

### Modifications

No conditions for a modification are anticipated, and approval of a modification would be unlikely.

### No Surface Occupancy (NSO) [CODE NOB25]

Resource: Toadstool Park Paleontological and Geological Area (NSO)

#### Stipulation

No surface occupancy or use is allowed within the boundaries of Toadstool Park SIA

#### Objective (Justification)

For justification refer to the Land and Resource Management Plan Management Area Direction, MA 2.1, Toadstool Park (2.11) Special Interest Area (SIA). The objective is to protect fossils, geologic and biostratigraphic type sections, and immediate environment of the site, including inherent scientific, natural historic, interpretive, educational, and recreational values for the area potentially impacted.

#### Application Methodology

Use this stipulation in Management Area 2.1 SIA, Toadstool Park.

#### Waivers

No conditions for a waiver are anticipated, and approval of a waiver would be unlikely.

#### Exceptions

No conditions for an exception are anticipated, and approval of an exception would be unlikely.

#### Modifications

No conditions for a modification are anticipated, and approval of a modification would be unlikely.

Additional stipulation maps provided by the office:

CSU	<input type="checkbox"/>	Undifferentiated	[CODE NOB36]
NAA	<input type="checkbox"/>	No Lease Areas	[CODE NOB27]
NSO	<input type="checkbox"/>	Undifferentiated	[CODE NOB29]

# New Mexico Bureau of Reclamation

## ALTERNATIVE A - No Action

Oil and gas development on the land around Navajo Reservoir would continue to be permitted by the FFO with review and concurrence from the USBR. In addition to the stipulations applied by the BLM, USBR stipulations on oil and gas activities include the following:

- ★ Drilling and well locations are restricted to more than 1,500 feet from Navajo Dam and its Appurtenant Structures.
- ★ No wells are to be located within 500 feet of the high line on Navajo Reservoir [CODE F124] (elevation 6,085 feet above mean sea level) so an NSO constraint applies. An NSO constraint is also Applicable along the San Juan River.
- ★ Production facilities are not located within 650 feet from the shoreline or on the ridgetop above the reservoir. They would be designed to minimize their visibility from the lake and other public use areas.
- ★ The location of compressors is reviewed to determine if mitigation is needed to minimize noise at recreation use areas and other sensitive locations.
- ★ Colocation of gas well facilities is encouraged to minimize surface disturbance and the duplication of facilities.
- ★ TL constraints are in effect within designated elk and mule deer critical winter range between December 1 and March 31.

Newcastle, WY BLM

## Stipulations:

Lease Notice No. 1

Lease Notice No. 2

## Special Lease Notice:

(Special Lease Notice information)

NSO (1) as mapped on the (Map Name) map; (2) protecting National Register eligible or listed cultural resource site (Serial Number).

NSO (1) (Entire Lease), (as mapped on the (Map Name) map), or (Legal Description); (2) protecting (Resource Value).

[CODES WY3,  
NC\_DEER\_CW] TLS (1) Nov 15 to Apr 30; (2) (Entire Lease), (as mapped on the (Map Name) map), or (Legal Description); (3) protecting big game crucial winter range.

TLS (1) May 1 to Jun 30; (2) (Entire Lease), (as mapped on the (Map Name) map), or (Legal Description); (3) protecting big game parturition areas.

[CODES WY5,  
NC\_GROUSE] TLS (1) Mar 1 to Jun 30; (2) (Entire Lease), (as mapped on the (Map Name) map), or (Legal Description); (3) protecting Sage Grouse nesting habitat.

TLS (1) Mar 1 to Jun 30; (2) (Entire Lease), (as mapped on the (Map Name) map), or (Legal Description); (3) protecting Sharp-Tailed Grouse nesting habitat.

[CODE WY7] TLS (1) Feb 1 to Jul 31; (2) (Entire Lease), (as mapped on the (Map Name) map), or (Legal Description); (3) protecting Raptor nesting habitat.

TLS (1) Feb 1 to Jul 31; (2) (Entire Lease), (as mapped on the (Map Name) map), or (Legal Description); (3) protecting Sage/Sharp-Tailed Grouse and Raptor nesting habitat.

[CODE WY9] TLS (1) Mar 1 to Jun 30; (2) (Entire Lease), (as mapped on the (Map Name) map), or (Legal Description); (3) protecting Sage/Sharp-Tailed Grouse nesting habitat.

[CODE WY10] TLS (1) Feb 1 to Jul 31; (2) (Entire Lease), (as mapped on the (Map Name) map), or (Legal Description); (3) protecting Sage Grouse and Raptor nesting habitat.

TLS (1) Feb 1 to Jul 31; (2) (Entire Lease), (as mapped on the (Map Name) map), or (Legal Description); (3) protecting Sharp-Tailed Grouse and Raptor nesting habitat.

TLS (1) Jan 1 to Dec 31; (2) (Entire Lease), (as mapped on the (Map Name) map), or (Legal Description); (3) protecting (Resource Value).

CSU (1) The lease area may contain habit for the threatened, endangered, candidate, or other special status plant and animal species listed below. Exploration and development proposals may be limited, or modifications required, or prohibited altogether, if activity is planned within the habitat boundaries of a threatened, endangered, candidate, or other special status plant/animal species as it then exists. Upon receipt of a site specific proposal, the authorized officer will review current inventory records of each location and may require that further localized surveys be performed to assure no threatened, endangered, candidate, proposed, or other special status species or habitat are present. (ENDANGERED SPECIES ACT OF 1973 AS AMENDED, SECTIONS 2 AND 7.); (2) (Entire Lease), (as mapped on the (Map Name) map), or (Legal Description); (3) protecting *Antennaria arcuata* (Meadow pussytoes), *Arabis pusilla* (Small rock cress), *Artemisia biennis* (Mystery wormwood), *Astragalus drabelliformis* (Bastard draba milkvetch), *Astragalus proimanthus* (Precocious milkvetch), *Bison bison* (Yellowstone bison), *Bufo baxteri* (Wyoming toad), *Bufo boreas boreas* (Western boreal toad), *Canis lupus* (Gray wolf), *Charadrius melodus* (Piping plover), *Cirsium aridum* (Cedar rim thistle), *Cirsium ownbeyi* (Ownbey's thistle), *Cynomys ludovicianus* (Black-tailed prairie dog), *Descurainia torulosa* (Wyoming tansymustard), *Gaura neomexicana* spp. *coloradensis* (Colorado butterfly plant), *Gila*

cyphal (Humpback chub), *Gila elegans* (Bonytail), *Grus americana* (Whooping crane), *Haliaeetus leucocephalus* (Bald eagle), *Lesquerella macrocarpa* (Large-fruited bladderpod), *Lesquerella multiceps* (Western bladderpod), *Lesquerella prostrata* (Prostrate bladderpod), *Lynx canadensis* (Canada lynx), *Macrhybopsis gelida* (Surgeon chub), *Mustela nigripes* (Black-footed ferret), *Numenius borealist* (Eskimo curlew), *Oncohyncus clarki* (Snake River cutthroat trout), *Oncohyncus clarki bouviri* (Yellowstone cutthroat trout), *Oncohyncus clarki lewisi* (West Slope cutthroat trout), *Oncohyncus clarki utah* (Bonneville cutthroat trout), *Penstemon aculis* var. *acaulis* (Stemless beardtongue), *Penstemon haydenii* (Blowout penstemon), *Phacelia glandulosa* var. *deserta* (Desert grandular phacelia), *Phlox opalensis* (Opal phlox), *Phlox pungens* (Beaver rim phlox), *Physaria dornii* (Dorn's twinpod), *Platanthera praeclara* (Kendall warm springs dace), *Ptychocheilus lucius* (Colorado pikeminnow), *Rhinichthys osculus thermalis* (Western boreal toad), *Scaphirhynchus albus* (Pallid sturgeon), *Spiranthes diluvialis* (Ute ladies'-tresses), *Sterna antillarum* (Interior least tern), *Thelesperma caespitosum* (Green river greenthread), *Thelesperma pubescens* (Uinta greenthread), *Thymallus arcticus* (Arctic grayling), *Townsendia microcephala* (Cedar mountain easter daisy), *Tympanuchus phasianellus columbianus* (Columbia sharptail grouse), *Ursus arctos horribilis* (Grizzly bear), *Vulpes velox* (Swift fox), *Xyrauchen texanus* (Razorback sucker), *Xyrauchen texanus* (Razorback sucker), *Yermo xanthocephalus* (Desert yellowhead), *Zapus hudsonius preblei* (Preble's meadow jumping mouse), Cushion plant communities, Species affected by water depletions from the platte river system.

CSU (1) Surface occupancy or use within 1/4 mile of a Sage/Sharp-tailed Grouse strutting/dancing ground will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) (Entire Lease), (as mapped on the (Map Name) map), or (Legal Description); (3) protecting Sage/Sharp-tailed Grouse breeding habitat.

CSU (1) Surface occupancy or use will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) (Entire Lease), (as mapped on the (Map Name) map), or (Legal Description); (3) protecting Class I and II Visual Resource Management Areas.

[CODE  
NC\_VRM]

CSU (1) Surface occupancy or use within 500 Feet of the Campground will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) (Entire Lease), (as mapped on the (Map Name) map), or (Legal Description); (3) protecting Campground.

[CODE  
NC\_RE\_DEV]

CSU (1) Surface occupancy or use within 1/4 Mile of the Campground will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) (Entire Lease), (as mapped on the (Map Name) map), or (Legal Description); (3) protecting Campground.

[CODE  
NC\_RE\_DEV]

CSU (1) Surface occupancy or use within 1/2 Mile of the Campground will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) (Entire Lease), (as mapped on the (Map Name) map), or (Legal Description); (3) protecting Campground.

[CODE  
NC\_RE\_DEV]

CSU (1) Surface occupancy or use within 500 Feet of the North Platte River will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) (Entire Lease), (as mapped on the (Map Name) map), or (Legal Description); (3) protecting Campground.

- CSU (1) Surface occupancy or use within 1/4 Mile of the North Platte River will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) (Entire Lease), (as mapped on the (Map Name) map), or (Legal Description); (3) protecting Campground.
- [CODE  
NC\_RE\_DEV] CSU (1) Surface occupancy or use within 1/2 Mile of the North Platte River will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) (Entire Lease), (as mapped on the (Map Name) map), or (Legal Description); (3) protecting Campground.
- [CODE  
NC\_RE\_DEV] CSU (1) Surface occupancy or use within 500 Feet of the Campground will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) (Entire Lease), (as mapped on the (Map Name) map), or (Legal Description); (3) protecting Bald Eagle Feeding Areas.
- CSU (1) Surface occupancy or use within 1/4 Mile of the Campground will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) (Entire Lease), (as mapped on the (Map Name) map), or (Legal Description); (3) protecting Bald Eagle Feeding Areas.
- CSU (1) Surface occupancy or use within 1/2 Mile of the Campground will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) (Entire Lease), (as mapped on the (Map Name) map), or (Legal Description); (3) protecting Bald Eagle Feeding Areas.
- CSU (1) Surface occupancy or use within 500 Feet of the North Platte River will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) (Entire Lease), (as mapped on the (Map Name) map), or (Legal Description); (3) protecting Bald Eagle Feeding Areas.
- CSU (1) Surface occupancy or use within 1/4 Mile of the North Platte River will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) (Entire Lease), (as mapped on the (Map Name) map), or (Legal Description); (3) protecting Bald Eagle Feeding Areas.
- CSU (1) Surface occupancy or use within 1/2 Mile of the North Platte River will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) (Entire Lease), (as mapped on the (Map Name) map), or (Legal Description); (3) protecting Bald Eagle Feeding Areas.
- CSU (1) Surface occupancy or use within (Constraining Resource) will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) (Entire Lease), (as mapped on the (Map Name) map), or (Legal Description); (3) protecting (Resource Value).
- CSU (1) Surface occupancy or use may be restricted or prohibited if paleontological sites exist unless paleontological sites are avoided or the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) (Entire Lease), (as mapped on the (Map Name) map), or (Legal Description); (3) protecting Lance Creek Fossil Area paleontological values.
- CSU (1) Surface use or occupancy shall not be allowed by oil and gas lessee(s), operating rights holders(s), and/or oil and gas operator(s) on this Federal oil and gas lease to conduct any oil and gas operation, including drilling for, removing, or disposing of oil and/or gas contained in the Federal coal lease (Lease Number) unless a plan for mitigation of
- [CODE  
NC\_EX\_CLAS]



anticipated impacts is developed between the oil and gas and the coal lessees, and the plan is approved by the Authorized Officer.; (2) (Entire Lease), (as mapped on the (Map Name) map), or (Legal Description); (3) For the purpose of protecting the first in time valid existing rights of the coal lessee, the Authorized Officer reserves the right to alter or modify any oil and gas operations on the lands described in this lease ensuring: a.) the orderly development of the coal resource by surface and/or underground mining methods; b.) coal mine worker safety; and/or c.) coal production rates or recovery of the coal resource. The oil and gas lessee(s), operating rights holders(s), and/or oil and gas operator(s) of this Federal oil and gas lease shall not hold the United States as lessor, coal lessee(s), sub-lessee(s), and/or coal operator(s) liable for any damage or loss of the oil and gas resource, including the venting of coal bed methane gas, caused by coal exploration or mining operations conducted on Federal coal lease (Lease Number).

CSU (1) Surface occupancy or use within 1/4 mile or visual horizon of trail whichever is closer may be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) (Entire Lease), (as mapped on the (Map Name) map), or (Legal Description); (3) protecting cultural and scenic values of the Oregon Trail.

CSU (1) Surface occupancy or use within 1/4 mile or visual horizon of trail whichever is closer may be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) (Entire Lease), (as mapped on the (Map Name) map), or (Legal Description); (3) protecting cultural and scenic values of the Mormon Trail.

CSU (1) Surface occupancy or use within 1/4 mile or visual horizon of trail whichever is closer may be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) (Entire Lease), (as mapped on the (Map Name) map), or (Legal Description); (3) protecting cultural and scenic values of the Pony Express Trail.

CSU (1) Surface occupancy or use within 1/4 mile or visual horizon of trail whichever is closer may be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) (Entire Lease), (as mapped on the (Map Name) map), or (Legal Description); (3) protecting cultural and scenic values of the California Trail.

[CODE WY35] CSU (1) Surface occupancy or use within 1/4 mile or visual horizon of trail whichever is closer may be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) (Entire Lease), (as mapped on the (Map Name) map), or (Legal Description); (3) protecting cultural and scenic values of the Bozeman Trail.

CSU (1) Surface occupancy or use within 1/4 mile or visual horizon of trail whichever is closer may be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) (Entire Lease), (as mapped on the (Map Name) map), or (Legal Description); (3) protecting cultural and scenic values of the Overland Trail.

CSU (1) Surface occupancy or use within (Constraining Resource) will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) (Entire Lease), (as mapped on the (Map Name) map), or (Legal Description); (3) protecting (Resource Value).

CSU (1) Surface occupancy or use within the Wind River Front Special Recreation Management Area will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) (Entire Lease), (as mapped on the (Map Name) map), or (Legal Description); (3) protecting visual, recreational, watershed, cultural, and wildlife values.

Additional stipulation maps provided by the office:

[CODE GEOLOGIC HAZARD  
NC\_GEO-HAZ]

Pinedale, WY BLM

## TIMING LIMITATION STIPULATIONS

- TLS (1) Nov 15 to Apr 30; (2) as mapped on the Pinedale RMP Oil and Gas Lease Stipulation Overlay #1; (3) protecting big game crucial winter range.
- TLS (1) May 1 to Jun 30; (2) as mapped on the Pinedale RMP Oil and Gas Lease Stipulation Overlay #1; (3) protecting big game parturition areas.
- TLS (1) Feb 1 to Jul 31; (2) as mapped on the Pinedale RMP Oil and Gas Lease Stipulation Overlay #2; (3) protecting sage grouse nesting habitat.

## NO SURFACE OCCUPANCY STIPULATIONS

- NSO (1) *list legal description* ; (2) protecting (*list which feedground*) elk feedground.
- NSO (1) *list legal description* ; (2) protecting HUD designated Zone A (100 year) flood hazard area on perennial water courses.
- NSO (1) Within the boundaries of (*list which campground*) Campground in *list legal description*; (2) protecting campground facilities and associated recreation values.
- NSO (1) *list legal description*; (2) protecting National Register Cultural Resource Site (*list site reference number*).

## CONTROLLED SURFACE USE STIPUALTIIONS

- CSU (1) Surface occupancy or use within 1/4 mile of the (*list which campground*) will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped on the Pinedale RMP Oil and Gas Lease Stipulation Overlay #2 ; (3) protecting campground and associated recreation values.
- CSU (1) Surface occupancy or use within 1000 feet of Beaver Creek or on slopes greater than 25 percent in the Beaver Creek ACEC will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped on the Pinedale RMP Oil and Gas Lease Stipulation Overlay #2; (3) protecting class A Colorado River cutthroat trout habitat.
- CSU (1) Surface occupancy or use within the Cora Stock Driveway will be restricted or prohibited from June 1 through June 30 and from Oct 1 through Oct 31 unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped on the Pinedale RMP Oil and Gas Lease Stipulation Overlay #2; (3) protecting cattle movement along the stock driveway.

[CODE P\_6]

- CSU (1) Surface occupancy or use, including snow removal and vehicle operations (over-the-snow vehicles excepted), will not be allowed on the Continental Divide Snowmachine Trail (CDST) from December 1 to April 30, unless the operator and the surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped on the Pinedale RMP Oil and Gas Lease Stipulation Overlay #2; (3) protecting recreational use on the CDST.
- CSU (1) Surface occupancy or use within HUD designated Zone A (100 Year) flood hazard areas not protected by NSO will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped on the Pinedale RMP Flood Hazard Overlay; (3) protecting riparian, water quality and floodplain values.
- CSU (1) Surface occupancy or use within the Sublette County Landfill at (*list landfill*) will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) (*list legal description*); (3) public safety and preventing ground water contamination.
- CSU (1) Surface occupancy or use within the Upper Green River Special Recreation Management Area and Wild & Scenic River Study Area will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped on the Pinedale RMP Oil and Gas Lease Stipulation Overlay #2; (3) protecting recreation and Wild & Scenic River values.
- CSU (1) Surface occupancy or use within 1/4 mile of a sage grouse strutting ground will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. Surface use and human activity will not be allowed within a 1/2 mile radius of active leks between midnight and 9:00 AM from March 1 through May 15. These restrictions may apply to the operation and maintenance of production facilities, as well as development activities; (2) as mapped on the Pinedale RMP Oil and Gas Lease Stipulation Overlay #2; (3) protecting sage grouse breeding habitat.
- CSU (1) Surface occupancy or use between Feb 1 and July 31 within a radius of up to 1 mile of occupied or active raptor nest sites will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped on the Pinedale RMP Oil and Gas Lease Stipulation Overlay #2, or as determined by a pre-disturbance raptor survey; (3) protecting raptor nesting habitat.
- CSU (1) Surface occupancy or use within the Soapstone Basin will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped on the Pinedale RMP Oil and Gas Lease Stipulation Overlay #2; (3) to reduce sediment and salinity deposition in the Green River/Colorado River system.

- CSU (1) Surface occupancy or use within 1/4 mile or the visual horizon (whichever is closer) of contributing segments of the Lander Cut-off of the Oregon Trail will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped on the Pinedale RMP Oil and Gas Lease Stipulation Overlay #2; (3) protecting contributing segments of the National Historic Trails System
- CSU (1) Surface occupancy or use will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped on the Pinedale RMP Visual Resource Management Overlay (preferred alternative); (3) protecting Class I and II Visual Resource Management Areas.

Additional Stipulation maps provided by office:

- [CODE P\_1] NSO (1) Protecting National Register Cultural Resources Site.
- [CODE P\_2] CSU (Undifferentiated) Sage grouse, raptors, ACEC
- [CODE P\_3] NSO (1) Within the boundaries of campground in legal description; protecting campground values.
- [CODE P\_4] TLS Feb 1 to Jul 31 Protecting sage grouse nesting habitat
- [CODE P\_5] NSO Protecting HUD designated Zone A (100 year) flood hazard area or perennial water courses.
- [CODE P\_6] CSU Flood Hazard
- [CODES  
Wy\_1, Wy\_2, Wy\_3, Wy\_4, Wy\_5] TLS Nov 15 to Apr 30 Protecting big game crucial winter range

Rawlins, WY BLM

- TLS (1) Mar 1 to Jul 31;  
 (2) as mapped on the Rawlins Field Office Map Overlays;  
 (3) protecting Sage Grouse nesting habitat.
- CSU (1) Surface occupancy or use within 1/4 mile of a sage/sharp-tailed grouse strutting/dancing ground will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts;  
 (2) as mapped on the Rawlins Field Office Map Overlays;  
 (3) protecting sage/sharp-tailed grouse breeding habitat. [CODE RW\_1]
- 

- TLS (1) Feb 1 to Jul 31;  
 (2) as mapped on the Rawlins Field Office Map Overlays;  
 (3) protecting Sage Grouse [CODE RW\_3] and Raptor nesting habitat. [CODE RW\_2]

- TLS (1) Nov 15 to Apr 30;  
 (2) as mapped on the Rawlins Field Office Map Overlays;  
 (3) protecting big game crucial winter range. [CODE Wy\_1, Wy\_2, Wy\_3, Wy\_4, Wy\_5]
- 

- TLS (1) Nov 15 to Apr 30;  
 (2) as mapped on the Rawlins Field Office Map Overlays;  
 (3) protecting big game crucial winter range. [CODE Wy\_1, Wy\_2, Wy\_3, Wy\_4, Wy\_5]

- TLS (1) Feb 1 to Jul 31;  
 (2) as mapped on the Rawlins Field Office Map Overlays;  
 (3) protecting Sage [CODE RW\_3] /Sharp- Tailed Grouse nesting habitat.

- CSU (1) Surface occupancy or use will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts;  
 (2) as mapped on the Rawlins Field Office Map Overlays;  
 (3) protecting Class I and II Visual Resource Management Areas.
- 

- TLS (1) Nov 15 to Apr 30;  
 (2) as mapped on the Rawlins Field Office Map Overlays;  
 (3) protecting big game crucial winter range. [CODE Wy\_1, Wy\_2, Wy\_3, Wy\_4, Wy\_5]

- TLS (1) Feb 1 to Jul 31;  
 (2) as mapped on the Rawlins Field Office Map Overlays;  
 (3) protecting Raptor nesting habitat. [CODE RW\_2]



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Coal/Oil and Gas Conflict Special Lease Stipulation

Stipulation 1:

\*CSU

- (1) Surface occupancy or use will be restricted or prohibited within areas of conflict with ongoing mining activities. An acceptable plan of mitigation or anticipated impacts must be negotiated between the oil and gas and coal lessees and approved by the authorized officer;
- (2) legals or entire lease;
- (3) protecting the valid existing rights for coal development and operations on, over, and underlying this lease.

Stipulation 2:

Neither the oil and gas lessee(s), operating rights holders(s), and/or oil and gas operator(s) of this Federal oil and gas lease may conduct any oil and gas operation, including drilling for, removing, or disposing of oil and/or gas in the following lands contained in the Federal coal lease unless a plan for mitigation of anticipated impacts is developed between the oil and gas and the coal lessees, and the plan is approved by the Authorized Officer.

Location stated in Township, Range and Section

If the Authorized Officer (AO) allows oil and gas operations on this lease the AO may alter or modify any oil and gas operations on the lands described in this lease that may interfere with 1) the orderly development of the coal resource by surface and/or underground mining methods; 2) coal mine worker safety; and/or 3) coal production rates or recovery of the coal resource.

The oil and gas lessee(s), operating rights holders(s), and/or oil and gas operator(s) of this Federal oil and gas lease shall not hold the United States as lessor, coal lessee(s), sub-lessee(s), and/or coal operator(s) liable for any damage or loss of the oil and gas resource, including the venting of coal bed methane gas, caused by coal exploration or mining operations conducted on Federal coal lease \_\_\_\_\_.

**Example Lease**

WY-0010-042      603.390 Acres  
 T.0180N, R.0780W, 06i11 PM, WY  
 sec. 022    SESW,NESE,S2SE;  
 027    E2E2,NWNE,NENW,SWSE;  
 027    SWNE,SENW,E2SW,NWSE (EXCL  
 027    36.61 AC IN MS 422);

Carbon County  
 Rawlins FO  
 Formerly Lease No.  
 Stipulations:  
 Lease Notice No. 1

- NSO (1) as mapped on the Rawlins Field Office Map Overlays;  
 (2) protecting National Register eligible or listed cultural resource site (enter Serial Number).
- TLS (1) May 1 to Jun 30; (2) entire lease; (3) protecting big game parturition areas.  
 [CODE Wy\_1, Wy\_2, Wy\_3, Wy\_4, Wy\_5]
- TLS (1) Nov 15 to Apr 30; (2) entire lease; (3) protecting big game crucial winter range.  
 [CODE Wy\_1, Wy\_2, Wy\_3, Wy\_4, Wy\_5]
- TLS (1) Mar 1 to Jul 31; (2) entire lease; (3) protecting Sage Grouse nesting habitat.
- TLS (1) Feb 1 to Jul 31; (2) entire lease; (3) protecting Sharp-Tailed Grouse nesting habitat.
- TLS (1) Feb 1 to Jul 31; (2) entire lease; (3) protecting Raptor nesting habitat. [CODE RW\_2]
- TLS (1) Feb 1 to Jul 31; (2) entire lease; (3) protecting Sage [CODE RW\_2]/Sharp-Tailed Grouse  
 [CODE RW\_3] and Raptor nesting habitat.
- TLS (1) Feb 1 to Jul 31; (2) entire lease; (3) protecting Sage/Sharp-Tailed Grouse [CODE RW\_3]  
 nesting habitat.
- TLS (1) Feb 1 to Jul 31; (2) entire lease; (3) protecting Sage Grouse [CODE RW\_3] and Raptor  
 nesting habitat. [CODE RW\_2]
- TLS (1) Feb 1 to Jul 31; (2) entire lease; (3) protecting Sharp-tailed Grouse (RW\_3) and Raptor nesting  
 habitat. [CODE RW\_2]
- CSU (1) Surface occupancy or use within 1/4 mile of a sage/sharp-tailed grouse strutting/dancing  
 ground will be restricted or prohibited unless the operator and surface managing agency arrive at  
 an acceptable plan for mitigation of anticipated impacts; (2) entire lease; (3) protecting  
 sage/sharp-tailed grouse breeding habitat.

- CSU (1) Surface occupancy or use will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) entire lease; (3) protecting Class I and II Visual Resource Management Areas.
- CSU (1) Surface occupancy or use within 500 Feet of the Campground will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) entire lease; (3) protecting Campground and Associated Recreation Values.
- CSU (1) Surface occupancy or use within the (enter constraining resource) will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) entire lease; (3) protecting (enter resource value being protected).
- CSU (1) Surface occupancy or use may be restricted or prohibited if paleontological sites exist unless paleontological sites are avoided or the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) entire lease; (3) protecting (enter paleontological area name) paleontological values.
- CSU Coal/Oil and Gas Conflict Special Lease Stipulation  
(1). Surface use or occupancy shall not be allowed by oil and gas lessee(s), operating rights holders(s), and/or oil and gas operator(s) on this Federal oil and gas lease to conduct any oil and gas operation, including drilling for, removing, or disposing of oil and/or gas contained in the Federal coal lease (enter coal lease number) unless a plan for mitigation of anticipated impacts is developed between the oil and gas and the coal lessees, and the plan is approved by the Authorized Officer.; (2) entire lease; (3) For the purpose of protecting the first in time valid existing rights of the coal lessee, the Authorized Officer reserves the right to alter or modify any oil and gas operations on the lands described in this lease ensuring: a.) The orderly development of the coal resource by surface and/or underground mining methods; b.) Coal mine worker safety; and/or c.) coal production rates or recovery of the coal resource. The oil and gas lessee(s), operating rights holders(s), and/or oil and gas operator(s) of this Federal oil and gas lease shall not hold the United States as lessor, coal lessee(s), sub-lessee(s), and/or coal operator(s) liable for any damage or loss of the oil and gas resource, including the venting of coal bed methane gas, caused by coal exploration or mining operations conducted on Federal coal lease (enter coal lease number).
- CSU (1) Surface occupancy or use within 1/4 mile or visual horizon of trail whichever is closer may be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) entire lease; (3) protecting cultural and scenic values of the (enter historic trail name).
- CSU (1) Surface occupancy or use within the Wind River Front Special Recreation Management Area will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) entire lease; (3) protecting visual, recreational, watershed, cultural, and wildlife values.

Rock Springs, WY BLM

## Rock Springs Stipulations

### Category

#### **No Leasing**

Greater Red Creek ACEC (Red Creek Drainage) *X203*  
 Wind River Front (Eastern Portion)  
*Total No Leasing*

#### **No Surface Occupancy (NSO)**

14-Mile Recreation Area *MBH*  
 Big Sandy River and 1/4-mile buffer (1.5 miles) *MBH*  
 Boars Tusk  
 Cedar Canyon, LaBarge, Sugarloaf, Tolar, *CONF*  
 and White Mountain Petroglyphs + 1/2-mile vista  
 Crookston Ranch  
 Cottonwood Canyon *MBH*  
 Current Creek Drainage *X601A*  
 Dry Sandy Swales *HISTRAILS*  
 Emmons Cone *MBH*  
 Greater Sand Dunes ACEC (developed recreation sites and ORV parking lot)  
 LaClede and Dug Springs Stage Stations *CONF*  
 Native American Burials *CONF*  
 Natural Corrals ACEC *X232*  
 North and South Table Mountains *MBH*  
 Oregon Buttes ACEC *X228*  
 Pilot Butte *MBH*  
 Pine Butte *MBH*  
 Pine Springs ACEC *X600, X600A, X600B*  
 Prehistoric Quarry *CONF*  
 Raptor nesting (occupied nests, cliffs, bluffs, roosts, outcrops, and pinnacles)  
 South Pass Historic Landscape (area visible within 1-mile buffer of Lander Cutoff and area visible within 3-mile buffer of Oregon Trail)  
 Special status plant species habitat  
 Sweetwater River and 1/4-mile buffer *XEROX MAP*  
 (Wild & Scenic part, 5.8 miles)  
 Tri-Territory Marker *MBH*  
 Wild horse herd viewing area + 1/2-mile buffer *MBH*  
*Total No Surface Occupancy*

#### **Seasonal Restrictions**

[CODE RS\_20]

## Crucial Antelope Winter Range

Crucial Deer Winter Range

Crucial Elk Winter Range

Crucial Moose Winter Range

Elk Calving Areas

Game Fish Spawning Areas (miles) *DNM*

Moose Parturition Areas

Mule Deer Parturition Areas

[CODE RS\_9] Raptor Habitat Feb 1- July 31

[CODE RS\_7] Sage Grouse Nesting Areas (1 3/4 mile from lek) Feb 1 - July 31

*Total Seasonal Restrictions***Controlled Surface Use Restrictions**

Continental Divide Snowmobile Trail (1/4-mile buffer)

[CODE RS\_12] Floodplains, wetlands, and riparian areas  
(within 50 feet of 100-year floodplains and waters)

[CODE RS\_5] Highly erodible soils

[CODE RS\_11] Historic Trails (1/4 mile or visual horizon)

Monument Valley *X604*Pine Mountain and Sugarloaf Basin (*X601B - X203*)

Recreation sites + 1/4 mile buffer

Riparian Areas

[CODE RS\_6] Sage Creek Watershed *X601C*

[CODE RS\_21] Sage Grouse Leks and 1/4-mile buffer

Slopes greater than 25%

South Pass Historic Landscape (area not visible within 1-mile buffer of Lander Cutoff and area not visible within 3-mile buffer of Oregon Trail)

[CODE RS\_4] Special status plant species potential habitat

[CODE RS\_10] Steamboat Mountain Crucial Overlap

Superior Recharge (modified)

View from Fontenelle Reservoir *DNM*

[CODE RS\_3] VRM Class II Lands

Within 100 feet of inner gorge of intermittent/ephemeral streams

Within 1/4-mile of Sweetwater River *XEROX MAP*

(Recreational part 3.4 miles)

*Total Controlled Surface Use Restrictions***Special Management**Steamboat Mountain ACEC *DEFERRED*Greater Sand Dunes ACEC *DEFERRED*

Rock Springs-Green River Expansion area

Wind River Front (Western Portion) *CSU**Total Special Management*

*MSH* – Map by hand from paper maps sent  
*CONF* – Confidential data No mapping permitted  
*XEROX MAP* – Map from xerox map sent  
*DNM* – Do not map

Additional stipulation maps provided by office:

- [CODE RS\_1] Wilderness Study Area
- [CODE RS\_2] Wind River Front
- [CODE RS\_8] Recharge Area
- [CODE RS\_13] ACEC Undifferentiated
- [CODE Wy\_1] Crucial Moose Winter Range
- [CODE Wy\_2] Crucial Deer Winter Range
- [CODE Wy\_3] Crucial Elk Winter Range
- [CODE Wy\_5] Crucial Antelope Winter Range

# San Juan National Forest



R2-FS-2820-13 (92)

Serial No. \_\_\_\_\_

**NOTICE FOR LANDS OF THE NATIONAL FOREST SYSTEM  
UNDER JURISDICTION OF  
DEPARTMENT OF AGRICULTURE**

The permittee/lessee must comply with all the rules and regulations of the Secretary of Agriculture set forth at Title 36, Chapter II, of the Code of Federal Regulations governing the use and management of the National Forest System (NFS) when not inconsistent with the rights granted by the Secretary of Interior in the permit. The Secretary of Agriculture's rules and regulations must be complied with for (1) all use and occupancy of the NFS prior to approval of an exploration plan by the Secretary of the Interior, (2) uses of all existing improvements, such as forest development roads, within and outside the area permitted by the Secretary of the Interior, and (3) use and occupancy of the NFS not authorized by an exploration plan approved by the Secretary of the Interior.

All matters related to this stipulation are to be addressed to:

**District Ranger**

**P.O. Box 310, Pagosa Springs, CO 81147**

**Telephone: 970-264-2268 Fax: 970-264-1538**

Who is the authorized representative of the Secretary of Agriculture.

**NOTICE**

**CULTURAL AND PALEONTOLOGICAL RESOURCES** – The FS is responsible for assuring that the leased lands are examined to determine if cultural resources are present and to specify mitigation measures. Prior to undertaking any surface-disturbing activities on the lands covered by this lease, the lessee or operator, unless notified to the contrary by the FS, shall:

1. Contact the FS to determine if a site specific cultural resource inventory is required. If a survey is required, then:
2. Engage the services of a cultural resource specialist acceptable to the FS to conduct a cultural resource inventory of the area of proposed surface disturbance. The operator may elect to inventory an area larger than the area of proposed disturbance to cover possible site relocation which may result from environmental or other considerations. An acceptable inventory report is to be submitted to the FS for review and approval at the time a surface disturbing plan of operation is submitted.

R2-FS-2820-13 (92)

3. Implement mitigation measures required by the FS and BLM to preserve or avoid destruction of cultural resource values. Mitigation may include relocation of proposed facilities, testing, salvage, and recordation or other protective measures. All costs of the inventory and mitigation will be borne by the lessee or operator, and all data and materials salvaged will remain under the jurisdiction of the U.S. Government as appropriate.

The Lessee or operator shall immediately bring to the attention of the FS and BLM any cultural or paleontological resources or any other objects of scientific interest discovered as a result of surface operations under this lease, and shall leave such discoveries intact until directed to proceed by FS and BLM.

**ENDANGERED OR THREATENED SPECIES** – The FS is responsible for assuring that the leased land is examined prior to undertaking any surface-disturbing activities to determine effects upon any plant or animal species listed or proposed for listing as endangered or threatened, or their habitats. The findings of this examination may result in some restrictions to the operator's plans or even disallow use and occupancy that would be in violation of the Endangered Species Act of 1973 by detrimentally affecting endangered or threatened species or their habitats.

The lessee/operator may, unless notified by the FS that the examination is not necessary, conduct the examination on the leased lands at his discretion and cost. This examination must be done by or under the supervision of a qualified resource specialist approved by the FS. An acceptable report must be provided to the FS identifying the anticipated effects of a proposed action on endangered or threatened species or their habitats.

R2-FS-2820-13 (92)

Serial No. \_\_\_\_\_

[CODE SJNF3]

CONTROLLED SURFACE USE STIPULATION

Surface occupancy or use is subject to the following special operating constraints:

On the lands described below:

For the purpose of:

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

R2-FS-2820-13 (92)

Serial No. \_\_\_\_\_

[CODE SJNF3a]

NO SURFACE OCCUPANCY STIPULATION

No surface occupancy or use is allowed on the lands described below (legal subdivision or other description):

For the purpose of:

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

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Serial No. \_\_\_\_\_

TIMING LIMITATIONS STIPULATION

No surface use is allowed during the following time period(s). This stipulation does not apply to operation and maintenance of production facilities.

On the lands described below:

For the purpose of (reason):

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

R2-FS-2820-13 (92)

Serial No. \_\_\_\_\_

USDA – FOREST SERVICE  
THREATENED SPECIES  
SENSITIVE SPECIES  
LEASE NOTICE

The lessee is hereby notified that this lease contains habitat for the following listed endangered or sensitive species:

Goshawk

The lands affected include:

T.39N., R.15W, N.M.P.M.  
Section 7: Lots 104, E2W2, E2  
Section 8: W2W2  
Section 18: Lots 1-4, E2W2, E2  
Section 19: Lots 1-4, E2W2, NE

All activities within the area may be precluded or highly restricted in order to comply with [San Juan Forest Land and Resource Management Plan], in order to preserve [Goshawk Habitat].

Occupancy and use of lands within the affected lands identified above, proposed in a Surface Use Plan of Operations, will be considered in an environmental analysis done to identify the mitigation measures necessary to protect the listed habitat. Measures such as road design, well pad size and location or directional drilling, will be made part of the permit authorizing the activity.

[CODE SNF5 -No Leasing Statutory]

[CODE SNF6 – Restrictions 83\*] NSO or No leasing Administrative\*

\*Stipulations shape files received from SJNF office did not discriminate between NSO and No Lease Administrative.

R2-FS-2820-13 (92)

Serial Number: \_\_\_\_\_

Report Number: C-52008

**REGION 2**  
**NEPA VALICATION & VERIFICATION FORM 36 CFR 228.102 E 1**  
for  
Oil & Gas Leasing

**I. INTRODUCTION**

**A. FOREST: San Juan**

**DISTRICT: Pagosa**

Legal description of proposed lease parcel:

T.34N., R.2W., N.M.P.M.

Sec. 23: LTS 15, 17, 25, 26, 32, 35

Sec. 26: LTS 4,5,8,11,12,30,32

Sec. 27: LTS 2,7,9, 16, SWSW

Sec. 28: S2SE

Sec. 33: LTS 1,6,7,9,10,15,16,18,27,29,33,35

**B. Land Status:**

1. Is parcel or portions of the parcel administratively unavailable for leasing? ( )YES ( )NO  
If YES, reason for unavailability:

2. Lease proposal:

Includes private land with Federal minerals? ( )YES ( )NO

If YES, are NFS issues involved? ( )YES ( )NO

If YES, attach Forest Service issues and recommendations for private lands. NFS recommendations to BLM for private lands are not binding or subject to appeal.

**II. NEW INFORMATION 36 CFR 228.102e 1**

A. Has leasing been adequately addressed in a NEPA document? ( )YES ( )NO

Name of Document:

San Juan National Forest Land and Resource Management Plan & EIS (1983, 1992)

B. Is there significant new information or circumstances as defined by 40 CFR1502.9 requiring additional environmental analysis? ( )YES ( )NO

If YES, additional NEPA required:

C. Is leasing this parcel consistent with the Forest/Grassland Land & Resource Management Plan? ( )YES ( )NO

D. Are conditions of occupancy properly included as stipulations in the resulting lease? ( )YES ( )NO

Serial Number: \_\_\_\_\_

Report Number: C-52008

- E. Are operations and development allowable on the proposed lease except where stipulations will prohibit all surface occupancy ( )YES ( )NO

**III. SUMMARY OF VERIFICATION ANALYSIS AND RECORD OF CONSENT/DENIAL TO LEASE:**

- A. ( ) Consent to issuance of the lease subject to Standard Lease Terms and Forest Service Notice for Lands R2-FS-2820-13 92.

- B. ( ) Consent to issuance of the lease subject to Standard Lease Terms and Forest Service Notice for Lands R2-FS-2820-13 92, and the following stipulations:

\_\_\_\_\_ No Surface Occupancy Stipulation NSO

\_\_\_\_\_ Timing Limitations Stipulation TL

\_\_\_\_\_ Controlled Surface Use Stipulation CSU

\_\_\_\_\_ Lease Notice LN

- C. ( ) Object to or deny lease for all or part of the proposed lease area (description of denied area and reason for denial attached).

**IV. PREPARED BY:**

Glenn Raby \_\_\_\_\_, Pagosa Ranger District  
 Minerals Specialist

\_\_\_\_\_  
 Date

**V. CONCURRENCE:**

\_\_\_\_\_, Pagosa Ranger District  
 District Ranger

\_\_\_\_\_  
 Date

**MINIMUM ATTACHMENTS**

- Parcel Map 7.5 min.
- Required Stipulations
- Lease Notices
- Check List optional
- Lease Denial if applicable



# Santa Fe National Forest

**Oil and Gas Leasing Restrictions/Stipulations for Area with Known Leasing Interest Santa Fe National Forest Plan (July 1987) as amended**

**San Juan Basin**

	Management Areas	Management Prescriptions
Standard Leasing	A, B, E, G, P, R, S	
Limited Surface Use (may include No Surface Occupancy)  Specific stipulations will be developed during the Environmental Analysis for leasing	C  Rio Chama	<ul style="list-style-type: none"> <li>• Manage for Visual Quality Objective of Retention</li> <li>• Manage threatened or endangered species habitat to reduce human disturbance and enhance riparian communities</li> <li>• Manage to limit open road density to 1.0 to 2.5 miles per square mile.</li> </ul>
	D  Salitral Las Vacas	<ul style="list-style-type: none"> <li>• Manage for Visual Quality Objective of Retention</li> <li>• Manage to enhance riparian habitat, fisheries, and big game winter range</li> <li>• Manage to limit open road density to 1.0 to 2.5 miles per square mile.</li> </ul>
	L  Corral Canyon Nacimiento [CODE SFNF3]	<ul style="list-style-type: none"> <li>• Manage for Visual Quality Objective of Retention</li> <li>• Manage Corral Canyon to emphasize birds of prey, mule deer, and mountain lion habitat.</li> <li>• Roads constructed will be closed immediately following the activity, scarified, and reseeded.</li> </ul>
Withdrawn from Leasing	H  Chama River Canyon Wilderness  San Pedro Parks Wilderness	

# Thunder Basin National Grasslands

# APPENDIX D OIL AND GAS STIPULATIONS THUNDER BASIN NATIONAL GRASSLANDS

## INTRODUCTION

This appendix displays the stipulations applied to oil and gas leases to be consistent with Forest Plan Standards and Guidelines, and a short explanation of the reasons for the stipulations. This is mandated by the oil and gas regulations found in 36 CFR 228.102 (c)(1)(ii). This section also discusses the guidelines by which waivers, exceptions, or modifications may be granted.

Waivers, exceptions, or modifications will be considered in accordance with the requirements of 36 CFR 228.104. Environmental analysis meeting NEPA requirements will be conducted in considering a request for a waiver, exception or modification. The Deciding Officer will make a determination based on this information.

All the following stipulations are consistent with and necessary to implement the land and resource management plan.

## DEFINITION OF TERMS

- Not Currently Authorized for Leasing (NCA): Lands are determined to be administratively available for leasing, but the decision to lease is withheld until some future time.
- Stipulation: A provision that modifies standard lease rights and is attached to and made a part of the lease. Stipulations have been developed for the categories of: 1) No Surface Occupancy, 2) Timing Limitations or seasonal restrictions, and 3) Controlled Surface Use.
- No Surface Occupancy (NSO): Use or occupancy of the land surface for fluid mineral exploration or development is prohibited to protect identified resource values.
- Timing Limitation (TL) (Seasonal Restriction): Prohibits surface use during specified time periods to protect identified resource values. This stipulation does not apply to the operation and maintenance of production facilities unless the findings of analysis demonstrate the continued need for such mitigation and that less stringent, project-specific mitigation measures would be insufficient.
- Controlled Surface Use (CSU): Use and occupancy is allowed (unless restricted by another stipulation), but identified resource values require special operational constraints that may modify the lease rights. CSU is used for operating guidance, not as a substitute for NSO or Timing stipulations.
- Lease Notice: Provides more detailed information concerning limitations that already exist in law, lease terms, regulations, or operational orders. A Lease Notice also addresses special items the lessee should consider when planning operations, but does not impose new or additional restrictions.
- Waiver (oil and gas leasing) : Permanent exemption from a lease stipulation. Waivers can be granted if the condition described in the stipulation no longer applies anywhere in the leasehold.

## Appendix D

- Exception (oil and gas leasing) : Case-by-case exemption from a lease stipulation. The stipulation continues to apply to all other sites within the leasehold to which the restrictive criteria apply.

### Definition of Terms, cont.

- Modification (oil and gas leasing) : Modifications are similar to exceptions, but broader in scope, and involve a fundamental change to the provisions of the stipulation. They can be granted either temporarily or for the duration of the lease. A modification may, therefore, include an exemption from or alteration to a stipulated requirement. Depending on the specific modification, the stipulation may or may not apply to all other sites within the leasehold to which the restrictive criteria applied.

## WATER , WETLANDS, WOODY DRAWS, RIPARIAN , AND FLOODPLAINS

### Controlled Surface Use (CSU) [CODE TB1]

Resource: Water, Wetlands, Woody Draws, Riparian, and Floodplains (CSU)(see Appendix G for definitions)

#### Stipulation

Try to locate activities and facilities away from the water's edge and outside the riparian areas, woody draws, wetlands, and floodplains. If necessary to locate facilities in these areas, then:

- Deposit no waste material (silt, sand, gravel, soil, slash, debris, chemical or other material) below high water lines, in riparian areas, in the areas immediately adjacent to riparian areas or in natural drainageways (draws, land surface depressions or other areas where overland flow concentrates and flows directly into streams or lakes).
- Deposit no soil material in natural drainageways.
- Locate the lower edge of disturbed or deposited soil banks outside the active floodplain.
- Stockpile no topsoil or any other disturbed soil in the active floodplain.
- Locate drilling mud pits outside riparian areas, wetlands and floodplains. If location is unavoidable in these areas, seal and dike all pits to prevent leakage or use containerized mud systems.

#### Objective (Justification )

For justification refer to the Land and Resource Management Plan Grassland-wide Direction, Water, number 14. This stipulation is to protect the biological and hydrologic features of riparian areas, woody draws, wetlands, and floodplains.

#### Application Methodology,

Use this stipulation in riparian areas, woody draws, wetlands, and floodplains that are greater than 400 meters wide. 43 CFR 3101.1-2 includes measures to relocate operations up to 200 meters and to delay operations up to 60 days in any lease year. Therefore use Standard Lease Terms for areas less than 200 meters from edge.

Appendix D

Waivers

This stipulation may be waived if the authorized officer determines the entire leasehold no longer contains any riparian areas, woody draws, wetlands, or floodplains.

## Appendix D

### Exceptions

The authorizing officer may grant an exception to this stipulation if the operator submits a plan that demonstrates impacts from the proposed action are acceptable or can be adequately mitigated.

### Modifications

The boundaries of the stipulated area may be modified if the authorized officer determines that portions of the area do not include riparian areas, woody draws, wetlands, and floodplains.

## SOILS [CODE TB2]

### No Surface Occupancy (NSO)

#### Resource: Slopes Greater than 40 Percent (NSO)

##### Stipulation

Surface occupancy and use is prohibited on slopes greater than 40 percent.

##### Objective (Justification)

For justification refer to the Land and Resource Management Plan Grassland-wide Direction, Soils, number 4. The objective of this stipulation is to protect soil resources from loss of productivity, prevent erosion on steep slopes, soil mass movement, and resultant sedimentation.

##### Application Methodology

Use this stipulation on slopes greater than 40 percent.

##### Waivers

This stipulation may be waived if the authorized officer determines conditions have changed and the entire leasehold no longer contains any slopes greater than 40 percent.

##### Exceptions

The authorizing officer may grant an exception to this stipulation if the operator submits a plan that demonstrates impacts from the proposed action are acceptable or can be adequately mitigated.

##### Modifications

The boundaries of the stipulated area may be modified if the authorizing officer determines that portions of the area do not include slopes greater than 40 percent.

#### Resource: Slopes Between 25 - 40 Percent (NSO) [CODE TB3]

##### Stipulation

Surface occupancy and use is prohibited on slopes between 25 - 40 percent with either highly erodible soils or soils susceptible to mass failure.

## Appendix D

## Objective (Justification)

For justification refer to the Land and Resource Management Plan Grassland-wide Direction, Soils, Number 4. The objective of this stipulation is to protect soil resources from loss of productivity, prevent erosion on steep slopes, soil mass movement, and resultant sedimentation.

## Application Methodology

This stipulation applies to slopes between 25 and 40 percent with either highly erodible soils or soils susceptible to mass movement. This stipulation will not apply to those areas of slopes between 25 - 40 percent where it is determined there are no highly erodible soils, or soils susceptible to mass failure.

## Waivers

This stipulation may be waived if the authorized officer determines conditions have changed and the entire leasehold no longer contains any highly erodible soils or soils susceptible to mass failure on slopes between 25 to 40 percent in the leasehold.

## Exceptions

The authorizing officer may grant an exception to this stipulation if the operator submits a plan that demonstrates impacts from the proposed action are acceptable or can be adequately mitigated.

## Modifications

The boundaries of the stipulated area may be modified if the authorizing officer determines that portions of the area do not include slopes between 25 to 40 percent with highly erodible soils or soils susceptible to mass failure.

## [CODE TB4] RECREATION

## Controlled Surface Use (CSU)

## Resource: Dispersed Recreation Sites (CSU)

## Stipulation

Noise from oil and gas production facilities will not exceed 70 decibels (as measured by the A-weighted sound level [dBA] system of measurement) within 400 meters of the high water line in the following areas:

- Weston Reservoir: T54N, R70W, Section 19
- Upton Cent. No 2: T47N, R65W, Section 11
- Kellog Dam: T47N, R63W, Section 17
- Upton Bass Pond: T48N, R65W, Section 12
- Turner Reservoir: T47N, R63W, Section 21
- East Iron Creek Reservoir: T48N, R64W, Section 25



## Appendix D

### Objective (Justification)

For justification refer to the Land and Resource Management Plan Grassland-wide Direction, Minerals and Energy Resources, Number 13. The objective is to maintain the recreation opportunities and settings within dispersed recreation sites.

### Application Methodology

This stipulation applies to oil and gas production activities that are not temporary in nature. It does not apply to drilling, work-over rigs, or other temporary activities.

### Waivers

This stipulation may be waived if the authorized officer determines conditions have changed and the entire leasehold no longer contains any fisheries within the dispersed recreation.

### Exceptions

The authorizing officer may grant an exception to this stipulation if the operator submits a plan that demonstrates impacts from the proposed action are acceptable or can be adequately mitigated.

### Modifications

The boundaries of the stipulated area may be modified if the authorizing officer determines that portions of the area do not include dispersed recreation sites.

## PALEONTOLOGY

### Controlled Surface Use (CSU)

#### Resource: Fossils (CSU)

#### Stipulation

Prior to undertaking any surface-disturbing activities on the lands covered by this lease, the lessee or operator, unless notified to the contrary by the Forest Service, shall:

- Contact the Forest Service to determine if a site-specific vertebrate paleontological inventory is required. The Forest Service will conduct inventories and surveys as part of the field review for the proposed activity on the lease. The operator may voluntarily engage the services of a qualified paleontologist to conduct the inventory.
- Implement mitigation measures required by the Forest Service and Bureau of Land Management to preserve or avoid destruction of vertebrate paleontologic resources. Mitigation may include relocation of proposed facilities or other protective measures.
- The lessee or operator shall immediately bring to the attention of the Forest Service any vertebrate paleontologic resources discovered as a result of surface operation under this lease, and shall leave such discoveries intact until directed to proceed by the Forest Service.

## Appendix D

## Objective (Justification)

For justification refer to the Land and Resource Management Plan Grassland-wide Direction, Paleontological Resources, numbers 1 and 3. The objective is to protect fossils and immediate environment of the site, including inherent scientific, natural historic, interpretive, educational, and recreational values for the area potentially impacted.

## Application Methodology

Use this stipulation for Class 3, 4, and 5 formations as described in Appendix J. The predevelopment survey protocol is described in Appendix J.

## Waivers

No conditions for a waiver are anticipated, and approval of a waiver would be unlikely.

## Exceptions

The authorizing officer may grant an exception to this stipulation if the operator submits a plan that demonstrates impacts from the proposed action are acceptable or can be adequately mitigated.

## Modifications

The boundaries of the stipulated area may be modified if the authorizing officer determines that portions of the area do not include significant fossils as described in Appendix J and FSM 2883.

## [CODE TB6] WILDLIFE

Wildlife stipulations are listed in the order of Timing Limitations, Controlled Surface Use, and No Surface Occupancy.

## Wildlife - Timing Limitations (TL)

## Resource: Ferruginous Hawk and Swainson's Hawk Nests (TL)

## Stipulation

Surface use is prohibited from March 1 through July 31 within 0.50 miles (line of sight) of ferruginous and Swainson's hawk nests.

## Objective (Justification)

For justification refer to the Land and Resource Management Plan Grassland-wide Direction, Fish, Wildlife, and Rare Plants, number 77. The objective is to prevent reduced reproductive success.

## Application Methodology

This stipulation applies to active ferruginous and Swainson's hawk nest. This stipulation applies to drilling, testing, new construction projects, and to workover operations. This does not apply to emergency repairs.

## Appendix D

### Waiver

This stipulation may be waived if the authorized officer determines conditions have changed and all nests within the leasehold or within the stipulated distance from the leasehold are known to have been unoccupied during each of the previous 7 years.

### Exceptions

The authorizing officer may grant an exception to this stipulation if the operator submits a plan that demonstrates impacts from the proposed action are acceptable, can be adequately mitigated, or if all nests within the leasehold or within the stipulated distance from the leasehold are known to have been unoccupied during each of the previous 7 years.

### Modifications

The boundaries of the stipulated area may be modified if the authorizing officer determines that portions of the area include nests or nest site(s) known to have been unoccupied during each of the previous 7 years.

Resource: Golden Eagle Nests (TL) [CODE TB7]

Stipulation [CODE TB7A]

Surface use is prohibited from February 1 through July 31 within 0.50 miles (line of sight) of golden eagle nests.

### Objective (Justification)

For justification refer to the Land and Resource Management Plan Grassland-wide Direction, Fish, Wildlife, and Rare Plants, number 77. The objective is to prevent reduced reproductive success.

### Application Methodology

This stipulation applies to active golden eagle nest. This stipulation applies to drilling, testing, new construction projects, and to workover operations. This does not apply to emergency repairs.

### Waiver

This stipulation may be waived if the authorized officer determines conditions have changed and all nests within the leasehold or within the stipulated distance from the leasehold are known to have been unoccupied during each of the previous 7 years.

### Exceptions

The authorizing officer may grant an exception to this stipulation if the operator submits a plan that demonstrates impacts from the proposed action are acceptable, can be adequately mitigated, or if all nests within the leasehold or within the stipulated distance from the leasehold are known to have been unoccupied during each of the previous 7 years.

### Modifications

The boundaries of the stipulated area may be modified if the authorizing officer determines that portions of the area include nests or nest site(s) known to have been unoccupied during each of the previous 7 years.

**Resource: Merlin Nests (TL)****Stipulation**

Surface use is prohibited from April 1 through August 15 within 0.50 miles (line of sight) of merlin nests.

**Objective (Justification)**

For justification refer to the Land and Resource Management Plan Grassland-wide Direction, Fish, Wildlife, and Rare Plants, number 77. The objective is to prevent reduced reproductive success.

**Application Methodology**

This stipulation applies to active merlin nests. This stipulation applies to drilling, testing, new construction projects, and to workover operations. This does not apply to emergency repairs.

**Waivers**

This stipulation may be waived if the authorized officer determines conditions have changed and all nests within the leasehold or within the stipulated distance from the leasehold are known to have been unoccupied during each of the previous 7 years.

**Exceptions**

The authorizing officer may grant an exception to this stipulation if the operator submits a plan that demonstrates impacts from the proposed action are acceptable, can be adequately mitigated, or if all nests within the leasehold or within the stipulated distance from the leasehold are known to have been unoccupied during each of the previous 7 years.

**Modifications**

The boundaries of the stipulated area may be modified if the authorizing officer determines that portions of the area include nests or nest site(s) known to have been unoccupied during each of the previous 7 years.

**Resource: Sharp-tailed Grouse Display Grounds (TL)****Stipulation**

Surface use is prohibited from March 1 through June 15 within 1 mile (line of sight) of a sharp-tailed grouse display ground.

**Objective (Justification)**

For justification refer to the Land and Resource Management Plan Grassland-wide Direction, Fish, Wildlife, and Rare Plants, number 15. The objective is to prevent abandonment of display grounds and reduced reproductive success.

**Application Methodology**

This stipulation applies to active sharp-tailed grouse display grounds. The 1-mile radius extends outward from the center of a display ground. This stipulation applies to drilling, testing, new construction projects, and to workover operations. This does not apply to emergency repairs.

## Appendix D

### Waivers

This stipulation may be waived if the authorized officer determines conditions have changed and all display grounds within the leasehold or within the stipulated distance from the leasehold have not been used during the past 2 breeding seasons.

### Exceptions

The authorizing officer may grant an exception to this stipulation if the operator submits a plan that demonstrates impacts from the proposed action are acceptable or can be adequately mitigated. An exception may be granted if the display ground has not been used by May 1 of the current year.

### Modifications

The boundaries of the stipulated area may be modified if the authorizing officer determines that portions of the area do not include display grounds that have been used during the last 2 breeding seasons.

## Resource: Sage Grouse Display Grounds (TL) [CODE TB10]

### Stipulation

Surface use is prohibited from March 1 through June 15 within 2 miles (line of sight) of a sage grouse display ground, and noise from production facilities must not exceed 49 decibels (10 dBA above background noise) at the display ground.

### Objective (Justification)

For justification refer to the Land and Resource Management Plan Grassland-wide Direction, Fish, Wildlife, and Rare Plants, number 47. The objective is to prevent abandonment of display grounds and reduced reproductive success.

### Application Methodology

This stipulation applies to active sage grouse display grounds. The 2-mile radius extends outward from the center of a display ground. This stipulation applies to drilling, testing, new construction projects, and to workover operations. This does not apply to emergency repairs.

### Waivers

This stipulation may be waived if the authorized officer determines conditions have changed and all display grounds within the leasehold or within the stipulated distance from the leasehold have not been used during the past 5 breeding seasons.

### Exceptions

The authorizing officer may grant an exception to this stipulation if the operator submits a plan that demonstrates impacts from the proposed action are acceptable or can be adequately mitigated. An exception may be granted if the display ground has not been used by May 1 of the current year.

## Appendix D

## Modifications

The boundaries of the stipulated area may be modified if the authorizing officer determines that portions of the area do not include any display grounds that have been used during the past 5 breeding seasons.

## [CODE TB11] Resource: Mountain Plover (TL)

## Stipulation

Surface use is prohibited from March 15 through July 31 within 0.25 miles (line of sight) of a mountain plover nests or nest aggregation areas.

## Objective (Justification)

For justification refer to the Land and Resource Management Plan Grassland-wide Direction, Fish, Wildlife, and Rare Plants, number 28. The objective is to prevent reduced reproductive success.

## Application Methodology

This stipulation applies to mountain plover nests and nest aggregation areas. This stipulation applies to drilling, testing, new construction projects, and to workover operations. This does not apply to emergency repairs.

## Waivers

This stipulation may be waived if the authorized officer determines conditions have changed and there are no nests or nest aggregation areas within the leasehold or within the stipulated distance from the leasehold.

## Exceptions

The authorizing officer may grant an exception to this stipulation if the operator submits a plan that demonstrates impacts from the proposed action are acceptable or can be adequately mitigated. An exception may be granted if the nest or nest aggregation area has not been used by June 10 of the current year.

## Modifications

The boundaries of the stipulated area may be modified if the authorizing officer determines that portions of the area do not include mountain plover nests and nesting areas.

## Resource: Black-footed Ferret Habitat (TL)

## Stipulation

Surface use is prohibited from March 1 through August 31 within 0.125 mile (line of sight) of prairie dog colonies occupied or thought to be occupied by black-footed ferrets.

## Objective (Justification)

For justification refer to the Land and Resource Management Plan Grassland-wide Direction, Fish, Wildlife, and Rare Plants, number 19. The objective is to protect ferrets when breeding and rearing young.

## Appendix D

### Application Methodology

This stipulation applies to prairie dog colonies occupied by black-footed ferrets. The spatial buffer extends out from the outer boundary of a prairie dog colony occupied by black-footed ferrets. This stipulation applies to drilling and testing and new construction projects, not to operation or maintenance of production facilities.

### Waivers

The authorized officer may grant a waiver if ferret surveys, following protocol approved by the U.S. Fish and Wildlife Service, indicate a low probability that ferrets occur in prairie dog colonies located in the leasehold or if the U.S. Fish and Wildlife Service determines that black-footed ferrets do not occur in the area.

### Exceptions

The authorizing officer may grant an exception to this stipulation if the operator submits a plan that demonstrates impacts from the proposed action are acceptable or can be adequately mitigated. An exception may be granted if surveys indicate a low probability that ferrets occur in a prairie dog colony where drilling, testing or new construction is proposed.

### Modifications

The boundaries of the stipulated area may be modified if the authorizing officer determines that black-footed ferrets do not occur in portions of the area.

## Resource: Swift Fox Dens (TL)

### Stipulation

Surface use is prohibited from March 1 through August 31 within 0.25 mile (line of sight) of swift fox dens.

### Objective (Justification)

For justification refer to the Land and Resource Management Plan Grassland-wide Direction, Fish, Wildlife, and Rare Plants, number 70. The objective is to prevent den abandonment and reduced reproductive success.

### Application Methodology

This stipulation applies to swift fox den sites. This stipulation applies to drilling and testing and new construction projects, not to operation or maintenance of production facilities.

### Waivers

This stipulation may be waived if the authorized officer determines conditions have changed and there are no dens within the leasehold or within the stipulated distance from the leasehold.

### Exceptions

The authorizing officer may grant an exception to this stipulation if the operator submits a plan that demonstrates impacts from the proposed action are acceptable or can be adequately mitigated.

## Appendix D

## Modifications

The boundaries of the stipulated area may be modified if the authorizing officer determines that portions of the area do not include swift fox dens.

## Wildlife - Controlled Surface Use (CSU)

## Resource: Black-footed Ferret Habitat (CSU)

## Stipulation

Operations in prairie dog colonies known or thought to be occupied by black-footed ferrets are subject to the following constraints:

- Limit oil and gas development to no more than one location per 80 acres.
- Suitable black-footed ferret habitat lost as a result of new facilities within prairie dog colonies must be replaced within 1 year.
- Access for routine maintenance of oil and gas facilities in prairie dog colonies is limited to daylight hours. This does not apply to emergency repairs.
- If it's necessary to place a new road in a prairie dog colony, align the road to minimize habitat loss.

## Objective (Justification)

For justification refer to the Land and Resource Management Plan Grassland-wide Direction, Fish, Wildlife, and Rare Plants, number 18, 21, 22, and 69. The objective is to protect against activities that could result in adverse impacts on black-footed ferrets or ferret recovery objectives.

## Application Methodology

This stipulation applies to prairie dog colonies occupied by black-footed ferrets.

## Waivers

The authorized officer may waive this stipulation if black-footed ferrets are released under an experimental non-essential population status; this stipulation may be waived for areas inside the experimental population area but outside Management Area 3.63.

## Exceptions

No conditions for an exception are anticipated, and approval of an exception is unlikely.

## Modifications

No conditions for a modification are anticipated, and approval of a modification is unlikely.



## Appendix D

### Resource: Mountain Plover Habitat (CSU)

#### Stipulation

Operations in mountain plover nesting and brooding habitat are subject to the following constraints:

- Limit oil and gas development to no more than one location per 80 acres.
- Suitable mountain plover habitat lost as a result of new facilities must be replaced within 1 year.
- Access for routine maintenance of oil and gas facilities in mountain plover nesting and brooding habitat will be between 9 am and 5 pm. This does not apply to emergency repairs.
- If it's necessary to place a new road in a prairie dog colony, align the road to minimize habitat loss.

#### Objective (Justification)

For justification refer to the Land and Resource Management Plan Grassland-wide Direction, Fish, Wildlife, and Rare Plants, numbers 26, 27, 30 and 69. The objective is to prevent reductions in reproductive success.

#### Application Methodology

This stipulation applies to identified nesting and brooding habitat. Multiple facilities concentrated at a site are allowed.

#### Waivers

No conditions for a waiver are anticipated, and approval of a waiver would be unlikely.

#### Exceptions

No conditions for an exception are anticipated, and approval of an exception would be unlikely.

#### Modifications

The boundary of the stipulated area may be modified if the authorizing officer determines that portions or the area do not contain active prairie-dog colonies.

## Wildlife - No Surface Occupancy (NSO)

### Resource: Mountain Plover Nests and Nesting Areas (NSO)

#### Stipulation

No surface occupancy or use is allowed within 0.25 miles of known mountain plover nests or nesting areas.

#### Objective (Justification)

For justification refer to the Land and Resource Management Plan Grassland-wide Direction, Fish, Wildlife, and Rare Plants, number 25. The objective is to prevent reduced reproductive success and adverse habitat loss.

## Appendix D

## Application Methodology

This stipulation applies to mountain plover nests or nesting areas. This does not apply to pipelines, fences, and underground utilities.

## Waivers

No conditions for a waiver are anticipated, and approval of a waiver would be unlikely.

## Exceptions

No conditions for an exception are anticipated, and approval of an exception would be unlikely.

## Modifications

The boundary of the stipulated area may be modified if the authorizing officer determines that portions or the area do not contain active black-tailed prairie dogs colonies.

## Resource: Bald Eagle Nests (NSO)

## Stipulation

No surface occupancy or use is allowed within 1.0 mile (line of sight) of bald eagle nests.

## Objective (Justification)

For justification refer to the Land and Resource Management Plan Grassland-wide Direction, Fish, Wildlife, and Rare Plants, number 76. The objective is to prevent reduced reproductive success and adverse habitat loss.

## Application Methodology

This stipulation applies to active bald eagle nests.

## Waivers

This stipulation may be waived if the authorized officer determines conditions have changed and all nests within the leasehold or within the stipulated distance from the leasehold are known to have been unoccupied during each of the previous 7 years.

## Exceptions

The authorizing officer may grant an exception to this stipulation if the operator submits a plan that demonstrates impacts from the proposed action are acceptable or can be adequately mitigated.

## Modifications

The boundaries of the stipulated area may be modified if the authorizing officer determines that portions of the area include nests or nest site(s) known to have been unoccupied during each of the previous 7 years. The boundary of the stipulated area may also be modified if the authorized officer determines that portions of the area can be occupied without adversely affecting the eagles.

## Appendix D

## Resource: Bald Eagle Winter Roosts (NSO)

## Stipulation

No surface occupancy or use is allowed within 1.0 mile (line of sight) of bald eagle roosting areas.

## Objective (Justification)

For justification refer to the Land and Resource Management Plan Grassland-wide Direction, Fish, Wildlife, and Rare Plants, number 76. The objective is to prevent adverse impacts on wintering and migrating bald eagles.

## Application Methodology

This stipulation applies to bald eagle winter roosting areas.

## Waivers

This stipulation may be waived if the authorized officer determines conditions have changed and winter roosting areas are no longer used within the leasehold or within the stipulated distance from the leasehold.

## Exceptions

The authorizing officer may grant an exception to this stipulation if the operator submits a plan that demonstrates impacts from the proposed action are acceptable or can be adequately mitigated.

## Modifications

The boundaries of the stipulated area may be modified if the authorizing officer determines that portions of the area do not include winter roosting areas. The boundary of the stipulated area may also be modified if the authorized officer determines that portions of the area can be occupied without adversely affecting the eagles.

## Resource: Golden Eagle, Merlin, Ferruginous Hawk, Swainson's Hawk, and Burrowing Owl Nests (NSO)

## Stipulation

No surface occupancy or use is allowed within 0.25 mile (line-of-sight) of golden eagle, merlin, ferruginous hawk, Swainson's hawk, or burrowing owl nests.

## Objective (Justification)

For justification refer to the Land and Resource Management Plan Grassland-wide Direction, Fish, Wildlife, and Rare Plants, number 76. The objective is to prevent reduced reproductive success and adverse habitat loss.

## Application Methodology

This stipulation applies to active golden eagle, merlin, ferruginous hawk, Swainson's hawk, or burrowing owl nests.

## Appendix D

## Waivers

This stipulation may be waived if the authorized officer determines conditions have changed and all nests within the leasehold or within the stipulated distance from the leasehold are known to have been unoccupied during each of the previous 7 years.

## Exceptions

The authorizing officer may grant an exception to this stipulation if the operator submits a plan that demonstrates impacts from the proposed action are acceptable or can be adequately mitigated.

## Modifications

The boundaries of the stipulated area may be modified if the authorizing officer determines that portions of the area include nests or nest site(s) known to have been unoccupied during each of the previous 7 years. The boundary of the stipulated area may also be modified if the authorized officer determines that portions of the area can be occupied without adversely affecting these raptors.

## [CODE TB20] Resource: Sharp-tailed Grouse and Sage Grouse Display Grounds (NSO)

## Stipulation

No surface occupancy or use is allowed within 0.25 mile (line-of-sight) of a sharp-tailed grouse or sage grouse display ground.

## Objective (Justification)

For justification refer to the Land and Resource Management Plan Grassland-wide Direction Fish, Wildlife, and Rare Plants, numbers 14 and 46. The objective is to prevent abandonment of display grounds, reduced reproductive success, and adverse habitat loss.

## Application Methodology

This stipulation applies to active sharp-tailed grouse or sage grouse display grounds. The 0.25-mile radius extends outward from the center of a display ground.

## Waivers

This stipulation may be waived if the authorized officer determines conditions have changed and all display grounds within the leasehold or within the stipulated distance of the leasehold have not been used during the last 2 breeding seasons (sharp-tailed grouse) or 5 breeding seasons (sage grouse).

## Exceptions

The authorizing officer may grant an exception to this stipulation if the operator submits a plan that demonstrates impacts from the proposed action are acceptable or can be adequately mitigated.

## Appendix D

### Modifications

The boundaries of the stipulated area may be modified if the authorizing officer determines that portions of the area do not include any display grounds that have been used during the last 2 breeding seasons (sharp-tailed grouse) or 5 breeding seasons (sage grouse). The boundary of the stipulated area may also be modified if the authorized officer determines that portions of the area can be occupied without adversely affecting sage grouse and the display grounds.

## SCENERY MANAGEMENT

### High Scenic Integrity Objective (SIO) Areas

#### Controlled Surface Use (CSU)

Resource: Scenery (CSU)

#### Stipulation

Surface occupancy and use is subject to operational constraints to maintain the landscape character intact. Deviations may be present but must repeat the form, line, color, texture, and pattern common to the landscape character so completely and to such scale that they are not evident.

#### Objective (Justification)

For justification refer to the Land and Resource Management Plan Grassland-wide Direction, Scenery Management, number 1. The objective is to maintain the Scenic Integrity Objective (SIO) for areas identified as high.

#### Application Methodology

Use this stipulation on areas identified as high on the adopted SIO map. Operational constraints may include utilizing topographic/vegetative screening, matching color tones of facilities with surrounding topographic features, orienting the well pad/facilities, redesigning production facilities to such scale that they may not be evident, or placing facilities outside the high SIO area.

#### Waivers

No conditions for a waiver are anticipated, and approval of a waiver is unlikely.

#### Exceptions

No conditions for an exception are anticipated, and approval of an exception is unlikely.

#### Modifications

The boundaries of the stipulated area may be modified if the authorizing officer determines that portions of the area do not include high SIO areas.

## Moderate Scenic Integrity Objective (SIO) Areas Controlled Surface Use (CSU)

[CODE TB22] Resource: Scenery (CSU)

### Stipulation

Surface occupancy and use is subject to operational constraints to maintain a landscape character that is no more than slightly altered. Noticeable deviations must remain visually subordinate to the landscape character being viewed.

### Objective (Justification)

For justification refer to the Land and Resource Management Plan Grassland-wide Direction, Scenery Management, number 1. The objective is to maintain the scenic integrity objective (SIO) for areas identified as moderate.

### Application Methodology

Use this stipulation on areas identified as moderate on the adopted SIO map. Operational constraints may include utilizing vegetative/vegetative screening, matching color tones of facilities with surrounding topographic features, orienting the well pad/facilities, redesigning production facilities to such scale that they are visually subordinate to the landscape, or placing facilities outside the moderate SIO area.

### Waivers

No conditions for a waiver are anticipated, and approval of a waiver is unlikely.

### Exceptions

No conditions for an exception are anticipated, and approval of an exception is unlikely.

### Modifications

The boundaries of the stipulated area may be modified if the authorizing officer determines that portions of the area do not include moderate SIO areas.

## MANAGEMENT AREA PRESCRIPT IONS

### MA 1.31 Backcountry Recreation Nonmotorized

#### No Surface Occupancy (NSO)

Resource: Backcountry Areas (NSO)

### Stipulation

No surface occupancy or use is allowed within boundaries of backcountry nonmotorized management areas.

## Appendix D

### Objective (Justification)

For justification refer to the Land and Resource Management Plan Management Area Direction, MA 1.31 Backcountry Recreation Nonmotorized, Standards and Guidelines, number 2. The objective is to retain recreation opportunities in a natural-appearing landscape.

### Application Methodology

Use this stipulation in MA 1.31

### Waivers

No conditions for a waiver are anticipated, and approval of a waiver would be unlikely.

### Exceptions

No conditions for an exception are anticipated, and approval of an exception would be unlikely.

### Modifications

No conditions for a modification are anticipated, and approval of a modification would be unlikely.

## MA 2.1 Special Interest Area – Archeological Resources

### No Surface Occupancy (NSO)

Resource: Cellars and Buffalo Divide Archeological Sites (NSO)

### Stipulation

No surface occupancy or use is allowed within the boundaries of Cellars and Buffalo Divide Special Interest Areas.

### Objective (Justification)

For justification refer to the Land and Resource Management Plan Management Area Direction, MA 2.1, Cellars and Buffalo Divide Special Interest Areas. The objective is to protect the heritage resources.

### Application Methodology

Use this stipulation in Management Area 2.1, Cellars and Buffalo Divide SIAs.

### Waivers

No conditions for a waiver are anticipated, and approval of a waiver would be unlikely.

### Exceptions

No conditions for an exception are anticipated, and approval of an exception would be unlikely.

### Modifications

No conditions for a modification are anticipated, and approval of a modification would be unlikely.

## MA 2.1 Special Interest Area – Historic Rangeland No Surface Occupancy (NSO)

Resource: Cow Creek Historic Rangeland (NSO)

### Stipulation

No surface occupancy or use is allowed within the boundaries of Cow Creek Historic Rangeland Special Interest Area.

### Objective (Justification)

For justification refer to the Land and Resource Management Plan Management Area Direction, MA 2.1, Cow Creek Historic Rangeland Special Interest Area. The objective is to protect the natural landscape, while providing a recreational opportunity to participate in a setting similar to the open range days.

### Application Methodology

Use this stipulation in Management Area 2.1, Cow Creek Historic Rangeland SIA.

### Waivers

No conditions for a waiver are anticipated, and approval of a waiver would be unlikely.

### Exceptions

No conditions for an exception are anticipated, and approval of an exception would be unlikely.

### Modifications

No conditions for a modification are anticipated, and approval of a modification would be unlikely.

## MA 2.1 Special Interest Area – Paleontology and Geological Resources

### No Surface Occupancy (NSO)

Resource: Lance Geologic Area (NSO)

### Stipulation

No surface occupancy or use is allowed within the boundaries of Lance Special Interest Area.

### Objective (Justification)

For justification refer to the Land and Resource Management Plan Management Area Direction, MA 2.1, Lance Geologic Special Interest Area. The objective is to protect the geologic resources.

### Application Methodology

Use this stipulation in Management Area 2.1, Lance Geologic SIA.



## Appendix D

### Waivers

No conditions for a waiver are anticipated, and approval of a waiver would be unlikely.

### Exceptions

No conditions for an exception are anticipated, and approval of an exception would be unlikely.

### Modifications

No conditions for a modification are anticipated, and approval of a modification would be unlikely.

## MA 2.1 Special Interest Areas – Zoological Controlled Surface Use (CSU)

### Resource: Cheyenne River Zoological Area (CSU)

#### Stipulation

Operations may be moved or modified if it is determined that the proposed action will have adverse effects on black-footed ferret reintroduction objectives.

#### Objective (Justification)

For justification refer to the Land and Resource Management Plan Management Area Direction MA 2.1 Cheyenne River Special Interest Area. The objective is to protect against activities that will adversely impact black-footed ferret reintroduction objectives.

#### Application Methodology

Use this stipulation in MA 2.1 SIA, Cheyenne River Zoological.

### Waivers

No conditions for a waiver are anticipated, and approval of a waiver would be unlikely.

### Exceptions

No conditions for an exception are anticipated, and approval of an exception would be unlikely.

### Modifications

No conditions for a modification are anticipated, and approval of a modification would be unlikely.

## MA 2.2 Research Natural Areas No Surface Occupancy (NSO)

### Resource: Research Natural Areas (NSO)

#### Stipulation

No surface occupancy or use is allowed within the established boundaries of Rock Creek and Wildlife Draw Research Natural Areas.

## Appendix D

## Objective (Justification)

For justification refer to the Land and Resource Management Plan Management Area Direction, MA 2.2, Research Natural Areas, Standards and Guidelines, Minerals and Energy Resources number 2. The objective is to maintain natural conditions for research purposes and protect against activities, which directly or indirectly modify the natural occurring ecological processes within the RNA.

## Application Methodology

Use this stipulation in Management Area 2.2 RNA in the following areas: Rock Creek, and Wildlife Draw. All access and other development and production-related facilities will be prohibited.

## Waivers

The authorized officer may grant a waiver if an area is found unsuitable as research natural area.

## Exceptions

The authorizing officer may grant an exception to this stipulation if conditions change and portions of an area are determined to be unsuitable for a research natural area.

## Modifications

The boundaries of the stipulated area may be modified if the authorizing officer determines that portions of the area are unsuitable as a research natural area.

## MA 3.63 Black-footed Ferret Reintroduction Habitat

### Controlled Surface Use (CSU)

#### Resource: Black-footed Ferret Reintroduction Habitat (CSU)

## Stipulation

To preserve black-footed ferret habitat (Management Area 3.63), operations in all prairie dog colonies are subject to the following constraints:

- Limit oil and gas development to no more than one location per 80 acres.
- Suitable black-footed ferret habitat lost as a result of new facilities within prairie dog colonies must be replaced within 1 year.
- Access for routine maintenance of oil and gas facilities in prairie dog colonies is limited to daylight hours. This does not apply to emergency repairs.
- If it's necessary to place a new road in a prairie dog colony, align the road to minimize habitat loss.

## Objective (Justification)

For justification refer to the Land and Resource Management Plan Management Area Direction, MA 3.63, Black-footed Ferret Reintroduction Habitat, Standards and Guidelines, Minerals and Energy resources number 1, and the Land and Resource Management Plan Grassland-wide Direction, Fish, Wildlife, and Rare Plants, number 18, 21, 22, and 69. The objective is to protect against activities that will adversely impact black-footed ferret reintroduction objectives.

## Appendix D

### Application Methodology

Use this stipulation in MA 3.63, black-footed ferret reintroduction habitat.

### Waivers

No conditions for a waiver are anticipated, and approval of a waiver is unlikely.

### Exceptions

No conditions for an exception are anticipated, and approval of an exception is unlikely.

### Modifications

No conditions for a modification are anticipated, and approval of a modification is unlikely.

## MA 3.68 Big Game Range

### Timing Limitation

#### Resource: Deer, Elk, and Pronghorn Habitat (TL)

#### Stipulation

Surface use is prohibited from December 15 through March 15 of each year on identified winter range for deer, elk, or pronghorn.

#### Objective (Justification):

For justification refer to the Land and Resource Management Plan Management Area Direction, MA 3.68, Big Game Range, Standards and Guidelines, General number 2. The objective is to avoid adversely impacting big game winter range.

#### Application Methodology

This stipulation applies to deer, elk, or pronghorn winter range within MA 3.68. This stipulation applies to drilling and testing and new construction projects, not to operation or maintenance of production facilities.

#### Waivers

No conditions for a waiver are anticipated, and approval of a waiver would be unlikely.

#### Exceptions

The authorizing officer may grant an exception to this stipulation if the operator submits a plan that demonstrates impacts from the proposed action are acceptable or can be adequately mitigated.

#### Modifications

The boundaries of the stipulated area may be modified if the authorizing officer determines that portions of the area do not include winter range.

## Appendix D

## Resource: Elk Calving (TL)

## Stipulation

Surface use is prohibited from May 1 through June 31 of each year on identified elk calving areas.

## Objective (Justification)

For justification refer to the Land and Resource Management Plan Management Area Direction, MA 3.68, Big Game Range, Standards and Guidelines, General number 3. The objective is to avoid adversely impacting elk calving areas during parturition.

## Application Methodology

This stipulation applies to elk calving areas within MA 3.68. This stipulation applies to drilling and testing and new construction projects, not to operation or maintenance of production facilities.

## Waivers

No conditions for a waiver are anticipated, and approval of a waiver would be unlikely.

## Exceptions

The authorizing officer may grant an exception to this stipulation if the operator submits a plan that demonstrates impacts from the proposed action are acceptable or can be adequately mitigated.

## Modifications

The boundaries of the stipulated area may be modified if the authorizing officer determines that portions of the area do not include elk calving areas.

Additional stipulation maps provided by office:

[CODE TB36]	CSU Undifferentiated
[CODE TB37]	NSO Undifferentiated
[CODE TB38]	NAA Undifferentiated

# Uinta National Forest

**RESOURCE: Geologic Hazards/Unstable Soils**

Stipulation: No Surface Occupancy

Objective: To preclude surface disturbing activities on areas that are unstable, have a high erosion hazard and would be difficult to reclaim

Waiver: None

Exception: An exception may be granted if the operator can demonstrate in a surface use Plan of operations that adverse effects can be minimized and activities safely conducted.

Modification: A modification may be granted if an on site inspection demonstrates that geologic hazards and unstable do not exist on the specific site.

**RESOURCE: Geologic Hazards/Unstable Soils**

Stipulation: Controlled Surface Use

Objective: To require that activities be located and/or designed to avoid or minimize the potential for adverse effects to unstable areas and to ensure that the area can be reclaimed.

Waiver: None

Exception: An exception may be granted if an on site inspection demonstrates that geologic hazards and unstable soils do not exist on the specific site.

Modification: A modification may be granted if an on site inspection demonstrates that geologic hazards and unstable soils do not exist on the specific site.

**RESOURCE: Steep Slopes**

Stipulation: No Surface Occupancy

Objective: To preclude construction of well sites and related facilities such as tank batteries on slopes over 35% which would involve relatively large cut and fill slopes and would be difficult to rehabilitate.

Waiver: None

Exception: An exception may be granted if the operator can demonstrate in a surface use plan of operations that adverse effects can be minimized and activities safely conducted.

Modification: A modification may be granted if an on-the-ground review of a proposed well site or facility shows that an area of less than 35% slope exists or that engineering design of the site can mitigate erosion and reclamation concerns.

**RESOURCE: Steep Slopes**

Stipulation: Controlled Surface Use

Objective: To require that facilities such as well sites be located and/or designed to minimize construction on steep slopes and large cut and fill slopes that would be difficult to rehabilitate.

Waiver: None

Exception: An exception may be granted if the operator can demonstrate in a surface use plan of operations that adverse effects can be minimized and activities safely conducted.

Modification: A modification may be granted if an on-the-ground review of a proposed well site or facility shows that an area of less than 35% slope exists or that engineering design of the site can mitigate erosion and reclamation concerns.

**RESOURCE: Wetland/Riparian Areas (greater than 40 acres)**

Stipulation: No Surface Occupancy

Objective: To preclude surface disturbing activities and protect wetland and riparian areas.

Waiver: None

Exception: An exception may be granted if the operator can demonstrate in a surface use plan of operations that adverse effects can be minimized, that there are no practicable alternatives, that a 404 permit can be obtained, and the area reclaimed.

Modification: A modification may be granted if an on-the-ground inspection shows that the area of the proposed activity is not wetland or riparian.

**RESOURCE: Wetland/Riparian Areas (greater than 40 acres)**

Stipulation: Controlled Surface Use

Objective: To require that surface disturbing activities in riparian areas and jurisdictional wetlands be located and/or designed to minimize adverse effects.

Waiver: None

Exception: An exception may be granted if the operator can demonstrate in a surface use plan of operations that adverse effects can be minimized, there are no practicable alternatives, and a 404 permit can be obtained.

Modification: The area affected by this stipulation may be modified if an on-the-ground survey concludes that riparian areas and wetlands do not cover the entire arm.

**RESOURCE: Critical Sage Grouse Habitat**

Stipulation: No Surface Occupancy

Objective: To protect critical sage grouse habitat.

Waiver: A waiver may be granted if new field studies in coordination with the applicable State wildlife agency concludes that no leks or important nesting habitat is present within two miles.

Exception: An exception may be granted if field studies show that there are no currently active leks within two miles.

Modification: A modification of the stipulation may be granted if new habitat studies show that a portion of the area does not contain habitat features critical to sage grouse.

**RESOURCE: Critical Sage Grouse Habitat**

Stipulation: Timing Limitation

Objective: To preclude new surface disturbance within critical sage grouse habitat which could interfere with breeding and nesting activities during the reproductive period (April 1 to May 31).



Waiver: A waiver may be granted if new field studies in coordination with the applicable State wildlife agency concludes that no leks or important nesting habitat is present within two miles.

Exception: An exception may be granted if field studies show that there are no currently active leks within two miles.

Modification: A modification of the stipulation may be granted if new habitat studies show that a portion of the area does not contain habitat features critical to sage grouse.

**RESOURCE: Critical Elk Winter Range**

Stipulation: Timing Limitation

Objective: To preclude new surface disturbing activities within elk critical winter range which would cause increased stress and/or displacement of animals during the critical time period (November 15 to April 30).

Waiver: A waiver may be granted if new habitat studies in coordination with the applicable State wildlife agency concludes that the area affected by this stipulation is no longer used as a winter range.

Exception: An exception may be granted if seasonal conditions are such (i.e., an early spring and snowmelt) that the elk have moved out of and are not using the general area during the particular year.

Modification: A modification of the stipulation may be granted if new habitat studies show that a portion of the arm is not used as a winter range.

**RESOURCE: Critical Deer Winter Range**

Stipulation: Timing Limitation

Objective: To preclude new surface disturbance within critical mule deer winter range, which could cause increased stress and displacement of animals during the critical winter period (November 15 to April 30)

Waiver: A waiver may be granted if new habitat studies in coordination with the applicable State wildlife agency concludes that the area affected by this stipulation is no longer used as a winter range.

Exception: An exception may be granted if seasonal conditions are such (i.e., an early spring and snowmelt) that the deer have moved out and are not using the general area during the particular year.

Modification: A modification of the stipulation may be granted if new habitat studies show that a portion of the area is not used as deer winter range.

**RESOURCE: Critical Deer Winter Range**

Stipulation: Controlled Surface Use

Objective: To limit the amount of disturbance within critical mule deer winter range, which could cause increased stress and displacement of animals during the critical winter periods.

Waiver: A waiver may be granted if new habitat studies in coordination with the applicable State wildlife agency concludes that the area affected by this stipulation is no longer used as mule deer winter range.

Exception: An exception may be granted if seasonal conditions are such (i.e., an early spring and snowmelt) that the mule deer have moved out and are not using the general area during the particular year.

Modification: A modification of the stipulation may be granted if new habitat studies show that a portion of the area is not used as deer critical winter range.

**RESOURCE: Critical Elk Summer Range**

Stipulation: Controlled Surface Use

Objective: To limit the amount of disturbance within critical elk summer range, which could cause increased stress and displacement of animals.

Waiver: A waiver may be granted if new habitat studies in coordination with the applicable State wildlife agency concludes that the area affected by this stipulation is no longer used as elk critical summer range.

Exception: An exception may be granted if seasonal conditions are such that the elk have moved out and are not using the general area during the particular year.

Modification: A modification of the stipulation may be granted if new habitat studies show that a portion of the area is not used as elk critical summer range.

**RESOURCE: Critical Deer Summer Range**

Stipulation: Controlled Surface Use

Objective: To limit the amount of disturbance within critical deer summer range, which could cause increased stress and displacement of animals and adverse effects on fawning.

Waiver: A waiver may be granted if new habitat studies in coordination with the applicable State wildlife agency concludes that the area affected by this stipulation is no longer used as mule deer critical summer range.

Exception: An exception may be granted if seasonal conditions are such that the mule deer have moved out and are not using the general area during the particular year.

Modification: A modification of the stipulation may be granted if new habitat studies show that a portion of the area is not used as deer critical summer range.

**RESOURCE: Critical Deer Summer Range**

Stipulation: Timing Limitation

Objective: To preclude new surface disturbance within critical mule deer summer range, which could cause increased stress, displacement of animals and reduced reproductive success during the summer fawning period (April 15 to May 15).

Waiver: A waiver may be granted if new habitat studies in coordination with the applicable State wildlife agency concludes that the area affected by this stipulation is no longer used as a summer range.

Exception: An exception may be granted if seasonal conditions are such that the deer have moved out and are not using the general area during the particular year.

Modification: A modification of the stipulation may be granted if new habitat studies show that a portion of the area is not used as deer summer range.

**RESOURCE: Critical Elk Yearlong Range**

Stipulation: No Surface Occupancy

Objective: To limit the amount of disturbance within critical elk yearlong range, which could cause increased stress, displacement and reduced reproduction of animals from disturbance during the critical winter and calving periods (November 15 to June 30).

Waiver: A waiver may be granted if new habitat studies in coordination with the applicable State wildlife agency concludes that the area affected by this stipulation is no longer used as elk critical yearlong range.

Exception: An exception may be granted if seasonal conditions are such (i.e., an early spring and snowmelt) that the elk have moved out and are not using the general area during the particular year.

Modification: A modification of the stipulation may be granted if new habitat studies show that a portion of the area is not used as elk critical yearlong range.

[CODE WU\_TLS]

**RESOURCE: Critical Elk Calving Range**

Stipulation: Timing Limitation

Objective: To preclude new surface disturbing activities within elk calving areas which could cause increased stress, displacement and reduced reproductive success during the critical time period (May 1 to June 30).

Waiver: A waiver may be granted if new habitat studies in coordination with the applicable State wildlife agency concludes that the area affected by this stipulation is no longer used as a calving area.

Exception: An exception may be granted if seasonal conditions are such that the elk have moved out and are not using the general area during the particular year.

Modification: A modification of the stipulation may be granted if new habitat studies show that a portion of the area is not used as a calving area.

**RESOURCE: Critical Elk Yearlong Range**

Stipulation: Timing Limitation

Objective: To preclude new surface disturbance within critical elk yearlong range, which could cause increased stress and displacement of animals during the critical winter and calving periods (November 15 to June 30).

Waiver: A waiver may be granted if new habitat studies in coordination with the applicable State wildlife agency concludes that the area affected by this stipulation is no longer used as elk critical yearlong range.

Exception: An exception may be granted if seasonal conditions are such (i.e., an early spring and snowmelt) that the elk have moved out and are not using the general area during the particular year.

Modification: A modification of the stipulation may be granted if new habitat studies show that a portion of the area is not used as deer critical yearlong range.

**RESOURCE: Critical Elk Yearlong Range**

Stipulation: Controlled Surface Use

Objective: To limit the amount of disturbance within critical elk yearlong range, which could cause increased stress and displacement of animals during the critical winter and calving periods.

Waiver: A waiver may be granted if new habitat studies in coordination with the applicable State wildlife agency concludes that the area affected by this stipulation is no longer used as elk critical yearlong range.

Exception: An exception may be granted if seasonal conditions are such (i.e., an early spring and snowmelt) that the elk have moved out and are not using the general area during the particular year.

Modification: A modification of the stipulation may be granted if new habitat studies show that a portion of the area is not used as elk critical yearlong range.

**RESOURCE: Sensitive Plant and Animal Species**

Stipulation: Controlled Surface Use – an on-the-ground survey would be required prior to surface disturbing activities to determine the possible presence of any sensitive plant or animal species. Facilities and operations would be designed or located so as to not adversely affect the viability of any sensitive species.

Objective: To ensure that proposed activities do not adversely affect the viability of a sensitive species.

Waiver: A waiver may be granted if surveys and research shows that potential habitat for sensitive species does not exist within the area.

Exception: Same

Modification: Same

**RESOURCE: Research Natural Areas**

Stipulation: No Surface Occupancy

Objective: To preclude surface occupancy and new surface disturbing activities within research natural areas.

Waiver: A waiver may be granted if the research natural area designation is removed.

Exception: None.

Modification: None.

**RESOURCE: Roadless Areas**

Stipulation: No Surface Occupancy

Objective: To protect and maintain the roadless character of the area, which includes such elements as natural integrity, natural appearance, opportunity for solitude, manageability of boundaries and special features (ecological, geological, scenic, cultural features).

Waiver: A waiver may be granted if upon future review during the forest planning process the area is determined to not possess roadless attributes or character.

Exception: None

Modification: None

**RESOURCE: Roadless Areas**

Stipulation: Controlled Surface Use

Objective: To protect and minimize impacts to the roadless character of the area, which includes such elements as natural integrity, natural appearance, opportunity for solitude, manageability of boundaries and special features (ecological, geological, scenic, cultural features).

Waiver: A waiver may be granted if upon future review during the forest planning process the area is determined to not possess roadless attributes or character.

Exception: None

Modification: None

**RESOURCE: Developed Campgrounds**

Stipulation: No Surface Occupancy

Objective: To preclude surface occupancy and new surface disturbing activities within developed campgrounds.

Waiver: A waiver may be granted if the campground is moved or eliminated.

Exception: None

Modification: None

**RESOURCE: Semi-Primitive Non-Motorized**

Stipulation: Controlled Surface Use

Objective: To minimize the effects of activities within Semi-Primitive Non-Motorized areas by requiring that activities be located, designed, and reclaimed in a manner that would minimize effects to the semi-primitive character of the land.

Waiver: None

Exception: None

Modification: None

**RESOURCE: Retention VQO**

Stipulation: No Surface Occupancy

Objective: To protect the high quality scenic resources present on forest lands within the study area.

Waiver: None

Exception: An exception may be granted if an operator can present a surface plan of operations that would demonstrate that the management objectives for Retention would be met and that the proposed action would not lower the scenic quality of the affected area. This decision must be approved by the forest officer responsible for scenery management.

Modification: None

**RESOURCE: Retention VQO**

Stipulation: Controlled Surface Use

Objective: To protect the high scenic quality of forest lands present within the study area by requiring proposed activities to be located and designed to meet the Retention objectives within one year from project startup.

Waiver: None

Exception: None

Modification: None



**RESOURCE: Partial Retention VQO**

Stipulation: Controlled Surface Use

Objective: To protect the scenic quality of forest lands within the study area by requiring proposed activities to be located and designed to meet the Partial Retention objectives within one year from project startup.

Waiver: None

Exception: None

Modification: None

Additional stipulation maps provided by office:

[CODE WUB1, WU\_CSU] CSU VMS: Western Uinta Basin National Forests

[CODE WUB2] CSU SPNM: Western Uinta Basin National Forests

[CODE WUB3] CSU Geohazard: Western Uinta Basin National Forests

[CODE WU\_NSO] NSO undifferentiated

Vernal, UT BLM  
Book Cliffs and Diamond Mountain  
RMPs

**United States Department of Interior  
Bureau of Land Management  
Utah State Office: Diamond Mountain Resource Area**

**NO SURFACE OCCUPANCY STIPULATION  
RELICT VEGETATION SITES**

Serial No. \_\_\_\_\_  
GIS Map Reference: RELIC.V\$

[CODE DS\_C320]

No surface occupancy or use is allowed on lands in Lears Canyon, Castle Cove, and Red Mountain areas.

On the lands described below:

- a. See attached

For the purpose of:

- a. Preserving and protecting relict vegetation and associated habitat as described in the Diamond Mountain Resource Management Plan (see LC08, LC09, RD20, and RD23, all in Chapter 3). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

**United States Department of Interior  
Bureau of Land Management  
Utah State Office: Diamond Mountain Resource Area**

**NO SURFACE OCCUPANCY STIPULATION  
SPECIAL STATUS PLANT SPECIES (FEDERALLY LISTED SPECIES ONLY)**

Serial No. \_\_\_\_\_  
GIS Map Reference: PF.TEP\$

[CODE DS\_C311]

No surface occupancy or use is allowed on the lands containing special status plant species habitat (federally listed species only).

On the lands described below:

- a. See attached

For the purpose of:

- a. Preserving and protecting special status plant habitat (Federally listed species only) as described in the Diamond Mountain Resource Management Plan (refer to decision number VE10 in Chapter 2). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

**United States Department of Interior  
Bureau of Land Management  
Utah State Office: Diamond Mountain Resource Area**

**NO SURFACE OCCUPANCY STIPULATION  
GREEN RIVER SCENIC CORRIDOR/FLOODPLAIN**

Serial No. \_\_\_\_\_  
GIS Map Reference: BP.FLOOD\$

No surface occupancy or use is allowed on the lands contained within the Green River Scenic Corridor or the Upper Green River floodplain.

On the lands described below:

- a. See attached

For the purpose of:

- a. Preserving and protecting Green River Scenic Corridor or the Upper Green River floodplain for recreational values as described in the Diamond Mountain Resource Management Plan (refer to decision BP43 in Chapter 3). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource values change or if the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

**United States Department of Interior  
Bureau of Land Management  
Utah State Office: Diamond Mountain Resource Area**

**NO SURFACE OCCUPANCY STIPULATION  
BROWNS PARK COMPLEX**

Serial No. \_\_\_\_\_  
GIS Map Reference: BP.VISTA

No surface occupancy or use is allowed on the lands in the Browns Park Complex area within VRM Class II areas or within line of sight or, 1/2 mile (whichever is less) of the Green River.

On the lands described below:

- a. See attached

For the purpose of:

- a. Preserving the form, line, color, or texture of the landscape so as not to attract the viewer's attention as described in the Diamond Mountain Resource Management Plan (refer to decision number BP49 in Chapter 3). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

**United States Department of Interior  
Bureau of Land Management  
Utah State Office: Diamond Mountain Resource Area**

**NO SURFACE OCCUPANCY STIPULATION  
LOWER GREEN RIVER SEGMENT-VISUAL CORRIDOR**

Serial No. \_\_\_\_\_  
GIS Map Reference: LWR.GR\$

[CODE DS\_C306]

No surface occupancy or use is allowed in the Lower Green River segment- Visual Corridor within 1/2 mile or line of sight, whichever is less, of the Green River.

On the lands described below:

- a. See attached

For the purpose of:

- a. Preserving and protecting the Lower Green River visual corridor as described in the Diamond Mountain Resource Management Plan (refer to decision number LGR38 in Chapter 3). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

**United States Department of Interior  
Bureau of Land Management  
Utah State Office: Diamond Mountain Resource Area**

**NO SURFACE OCCUPANCY STIPULATION  
PELICAN LAKE/PELICAN LAKE SPECIAL RECREATION MANAGEMENT AREA**

Serial No. \_\_\_\_\_  
GIS Map Reference: PELICAN/PELICAN

No surface occupancy or use is allowed on the lands containing Pelican Lake and Pelican Lake Special Recreation Management Area. [CODE DS\_C310] [CODE DS\_C309]

On the lands described below:

- a. See attached

For the purpose of:

- a. Preserving and protecting the area for recreational values as described in the Diamond Mountain Resource Management Plan (refer to decision number RE05 in Chapter 2). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date



**United States Department of Interior  
Bureau of Land Management  
Utah State Office: Diamond Mountain Resource Area**

**NO SURFACE OCCUPANCY STIPULATION  
RED MOUNTAIN: POTENTIAL RECREATION AREA**

Serial No. \_\_\_\_\_  
GIS Map Reference: PFREDREC\$  
[CODE DS\_C316]

No surface occupancy or use is allowed on the Red Mountain potential recreation area.

On the lands described below:

- a. See attached

For the purpose of:

- a. Preserving and protecting the Red Mountain potential recreational area as described in the Diamond Mountain Resource Management Plan (refer to decision number RD29 in Chapter 3). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource value changes or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

**United States Department of Interior  
Bureau of Land Management  
Utah State Office: Diamond Mountain Resource Area**

**NO SURFACE OCCUPANCY STIPULATION  
NATIONAL HISTORIC LANDMARK AREAS, REGISTER PROPERTIES,  
AND POTENTIAL REGISTER PROPERTIES**

Serial No. \_\_\_\_\_  
GIS Map Reference: NHL\$  
GIS Map Reference: NRS\$  
GIS Map Reference: P NRS\$

[CODE DS\_C307]

No surface occupancy or use is allowed on National Historic Landmark Areas, Register Properties, and Potential Register Properties.

On the lands described below:

- a. See attached

For the purpose of:

- a. Preserving and protecting National Historic Landmark Areas, Register Properties, and Potential Register Properties as described in the Diamond Mountain Resource Management Plan (refer to decision number CR04 in Chapter 2). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

**United States Department of Interior  
Bureau of Land Management  
Utah State Office: Diamond Mountain Resource Area**

**NO SURFACE OCCUPANCY STIPULATION  
DEVELOPED OR POTENTIAL RECREATION SITES**

Serial No. \_\_\_\_\_

GIS Map Reference: REC.SIT\$

GIS Map Reference: POTRECS

[CODE DS\_C317] Developed Recreation Site

[CODE DS\_C319] Potential Recreation Site

No surface occupancy or use is allowed on developed or potential recreation sites.

On the lands described below:

- a. See attached

For the purpose of:

- a. Preserving and protecting the developed and potential recreational sites as described in the Diamond Mountain Resource Management Plan (refer to decision number RE05 in Chapter 2). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource value changes or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

**United States Department of Interior  
Bureau of Land Management  
Utah State Office: Diamond Mountain Resource Area**

**NO SURFACE OCCUPANCY STIPULATION  
SEMI-PRIMITIVE NONMOTORIZED AREAS**

Serial No. \_\_\_\_\_  
GIS Map Reference: SPNME\$

[CODE DS\_C321]

No surface occupancy or use is allowed in semi-primitive, nonmotorized areas.

On the lands described below:

- a. See attached

For the purpose of:

- a. Protection of visual and primitive recreational qualities (These closures and limitations would not apply to BLM permitted uses that require off-road travel, such as grazing operations) as described in the Diamond Mountain Resource Management Plan (refer to decision number RE09 in Chapter 2). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

**United States Department of Interior  
Bureau of Land Management  
Utah State Office: Diamond Mountain Resource Area**

**NO SURFACE OCCUPANCY STIPULATION  
PEREGRINE FALCON NEST SITES**

Serial No. \_\_\_\_\_  
GIS Map Reference: PFPENSO\$

No surface occupancy or use is allowed (does not apply to casual use) within 1 mile of known peregrine falcon nests. This restriction would not apply to maintenance and operation of existing programs and facilities. It would not apply if impacts could be mitigated through other management action or site specific analysis of terrain features.

On the lands described below:

- a. See attached

For the purpose of:

- a. Protection of Peregrine Falcon nest sites and surrounding habitat as described in the Diamond Mountain Resource Management Plan (refer to decision number FW24 in Chapter 2). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

**United States Department of Interior  
Bureau of Land Management  
Utah State Office: Diamond Mountain Resource Area**

**NO SURFACE OCCUPANCY STIPULATION  
BALD EAGLE NEST SITES**

Serial No. \_\_\_\_\_  
GIS Map Reference: PFEAGNSO\$

[CODE DS\_C214]

No surface occupancy or use is allowed (does not apply to casual use) within 1/2 mile of known bald eagle nests. This restriction would not apply to maintenance and operation of existing programs and facilities. It would not apply if impacts could be mitigated through other management actions or site specific analysis of terrain features.

On the lands described below:

- a. See attached

For the purpose of:

- a. Protection of the bald eagle nest sites as described in the Diamond Mountain Resource Management Plan (refer to decision number FW23 in Chapter2). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

**United States Department of Interior  
Bureau of Land Management  
Utah State Office: Diamond Mountain Resource Area**

**NO SURFACE OCCUPANCY STIPULATION  
GOLDEN EAGLE NEST SITES**

Serial No. \_\_\_\_\_  
GIS Map Reference: PFGONSO\$

[CODE DS\_C313]

No surface occupancy or use is allowed (does not apply to casual use) within 1/2 mile of known golden eagle nests which would adversely affect current use, limit or preclude potential future use of the nest, or unless a permit to take is obtained from the U.S. Fish and Wildlife Service. This restriction would not apply to maintenance and operation of existing programs and facilities. It would not apply if impacts could be mitigated through other management actions or site specific analysis of terrain features.

On the lands described below:

- a. See attached

For the purpose of:

- a. Protection of golden nest sites as described in the Diamond Mountain Resource Management Plan (refer to decision number FW20 in Chapter 2). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

**United States Department of Interior  
Bureau of Land Management  
Utah State Office: Diamond Mountain Resource Area**

**NO SURFACE OCCUPANCY STIPULATION  
FERRUGINOUS HAWK NEST SITES**

Serial No. \_\_\_\_\_  
GIS Map Reference: PFFENSOS

[CODE DS\_C312]

No surface occupancy or use is allowed (does not apply to casual use) within 1/2 mile of known ferruginous hawk nests, which would adversely affect current use or limit or preclude potential future use of the nest, or unless a permit to take is obtained from the U.S. Fish and Wildlife Service. This restriction would not apply to maintenance and operation of existing programs and facilities. It would not apply if impacts could be mitigated through other management actions or site specific analysis of terrain features.

On the lands described below:

- a. See attached

For the purpose of:

- a. Protection of ferruginous hawk nest sites as described in the Diamond Mountain Resource Management Plan (refer to decision number FW22 in Chapter 2). Waivers, Exceptions, or Modifications, to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date



**United States Department of Interior  
Bureau of Land Management  
Utah State Office: Diamond Mountain Resource Area**

**NO SURFACE OCCUPANCY STIPULATION  
PARIETTE WETLANDS-GOOSE NEST SITES**

Serial No. \_\_\_\_\_  
GIS Map Reference: PFGOOS\$  
[CODE DS\_C313]

No surface occupancy or use is allowed within 1/8 mile of active goose nest sites.

On the lands described below:

- a. See attached

For the purpose of:

- a. Preserving and protecting active goose nest sites as described in the Diamond Mountain Resource Management Plan (refer to decision number PW07 in Chapter 3). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource value changes or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

**United States Department of Interior  
Bureau of Land Management  
Utah State Office: Diamond Mountain Resource Area**

**NO SURFACE OCCUPANCY STIPULATION  
BROWNS PARK COMPLEX-CRUCIAL DEER WINTER HABITAT**

Serial No. \_\_\_\_\_  
GIS Map Reference: BP.VEP\$

No surface occupancy or use is allowed on the lands in the Browns Park Crucial Deer Winter Habitat (sagebrush vegetation type).

On the lands described below:

- a. See attached

For the purpose of:

- a. Protection and preservation of crucial deer winter habitat as described in the Diamond Mountain Resource Management Plan (refer to decision number BP47 in Chapter 3). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource value changes or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

**United States Department of Interior  
Bureau of Land Management  
Utah State Office: Diamond Mountain Resource Area**

**NO SURFACE OCCUPANCY STIPULATION  
SAGE GROUSE STRUTTING GROUNDS**

Serial No. \_\_\_\_\_  
GIS Map Reference: LEK1K\$

[CODE DS\_C305]

No surface occupancy or use is allowed within 1,000 feet of sage grouse strutting grounds.

On the lands described below:

- a. See attached

For the purpose of:

- a. Protection of sage grouse strutting grounds as described in the Diamond Mountain Resource Management Plan (refer to decision number FW18 in Chapter 2). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

[CODE DS\_C410] NSO Undifferentiated

Form #/Date

**TIMING LIMITATION STIPULATIONS**

**United States Department of Interior  
Bureau of Land Management  
Utah State Office: Diamond Mountain Resource Area**

**TIMING LIMITATION STIPULATION  
SAGE GROUSE LEK NESTING AREAS**

Serial No. \_\_\_\_\_

GIS Map Reference: PFLEK2\$

[CODE DS\_C208]

No surface use is allowed within the nesting areas during the following time period. This stipulation does not apply to operation and maintenance of facilities. This stipulation would not apply if sage grouse are not present or if impacts could be mitigated.

- a. From March 1 through June 30.

On the lands described below:

- a. See attached

For the purpose of:

- a. Protecting and preserving sage grouse lek nesting areas on sage vegetation types as described by the Diamond Mountain Resource Management Plan (refer to decision number FW19 in Chapter 2). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

**United States Department of Interior  
Bureau of Land Management  
Utah State Office: Diamond Mountain Resource Area**

**TIMING LIMITATION STIPULATION  
ANTELOPE FLAT ANTELOPE FAWNING AREAS**

Serial No. \_\_\_\_\_  
GIS Map Reference: ANT.FAWN\$

No surface use is allowed within the Antelope Flat antelope fawning areas during the following time period. This stipulation does not apply to operation and maintenance of facilities or if animals are not present.

- a. From May 1 through June 30.

On the lands described below:

- a. See attached

For the purpose of:

- a. Protecting antelope fawning areas as described by the Diamond Mountain Resource Management Plan (refer to decision number FW16 in Chapter 2). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

**United States Department of Interior  
Bureau of Land Management  
Utah State Office: Diamond Mountain Resource Area**

**TIMING LIMITATION STIPULATION  
CRUCIAL DEER AND ELK WINTER RANGE**

Serial No \_\_\_\_\_  
GIS Map Reference: PF.DEW2\$  
[CODE DS\_C207]

No surface use is allowed within crucial deer and elk winter range during the following time period. This stipulation does not apply to operation and maintenance of facilities or if animals are not present.

- a. From December 1 through April 30.

On the lands described below:

- a. See attached

For the purpose of:

- a. Preventing adverse impacts that would cause significant displacements of deer or elk herds or loss of habitat as described in the Diamond Mountain Resource Management Plan (refer to decision number FW15 in Chapter 2). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

**United States Department of Interior  
Bureau of Land Management  
Utah State Office: Diamond Mountain Resource Area**

**TIMING LIMITATION STIPULATION  
RED MOUNTAIN AREA: CRUCIAL DEER AND ELK WINTER RANGE**

Serial No. \_\_\_\_\_  
GIS Map Reference: PFOHV.OK\$

[CODE DS\_C209]

No surface use is allowed within the Red Mountain Area crucial deer and elk winter range during the following time period. This stipulation does not apply to operation and maintenance of facilities or if animals are not present.

- a. From December 1 through March 31.

On the lands described below:

- a. See attached

For the purpose of:

- a. Preventing adverse impacts that would cause significant displacements of deer or elk herds or loss of habitat as described in the Diamond Mountain Resource Management Plan (refer to decision number RD17 in Chapter 3). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date



**United States Department of Interior  
Bureau of Land Management  
Utah State Office: Diamond Mountain Resource Area**

**TIMING LIMITATION STIPULATION  
PARIETTE WETLANDS-WATERFOWL**

Serial No. \_\_\_\_\_

GIS Map Reference: PFWATHAB\$

[CODE DS\_C210]

No surface use is allowed in the Pariette Wetlands during the following time period. This stipulation does not apply to operation and maintenance of facilities.

- a. From March 1 through May 25.

On the lands described below:

- a. See attached

For the purpose of:

- a. Preventing adverse impacts that would cause significant displacements of waterfowl and/or loss of habitat as described in the Diamond Mountain Resource Management Plan (refer to decision number PW06 in Chapter 3). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

**United States Department of Interior  
Bureau of Land Management  
Utah State Office: Diamond Mountain Resource Area**

**TIMING LIMITATION STIPULATION  
BIGHORN SHEEP LAMBING AREAS**

Serial No. \_\_\_\_\_  
GIS Map Reference: HBSP.1MB\$

No surface use is allowed in bighorn sheep lambing areas during the following time period. This stipulation does not apply to operation and maintenance of existing facilities.

- a. From April 15 through June 30.

On the lands described below:

- a. See attached

For the purpose of:

- a. Protecting bighorn sheep lambing areas as described in the Diamond Mountain Resource Management Plan (refer to decision number FW17 in Chapter 2). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this lease notice will be made in accordance with the land use plan and/or the regulatory provisions for such changes.

Form #/Date

**United States Department of Interior  
Bureau of Land Management  
Utah State Office: Diamond Mountain Resource Area**

**TIMING LIMITATION STIPULATION  
BIGHORN SHEEP WINTER, RUTTING AREAS**

Serial No. \_\_\_\_\_

GIS Map Reference: HBSP.1MB\$

No surface use is allowed within one mile of active bighorn sheep winter and rutting areas during the following time period. This stipulation does not apply if bighorn sheep are not present. The stipulation does not apply to operation and maintenance of existing facilities.

- a. From September 1 through May 15.

On the lands described below:

- a. See attached

For the purpose of:

- a. Protecting bighorn sheep winter and rutting areas as described in the Diamond Mountain Resource Management Plan (refer to decision number FW17 in Chapter 2). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this lease notice will be made in accordance with the land use plan and/or the regulatory provisions for such changes.

Form #/Date

**CONTROLLED SURFACE USE STIPULATIONS**

**United States Department of Interior  
Bureau of Land Management  
Utah State Office: Diamond Mountain Resource Area**

**CONTROLLED SURFACE USE STIPULATION  
VRM CLASS II AREAS**

Serial No. \_\_\_\_\_  
GIS Map Reference: VRM2\$

[CODE DS\_C211]

Surface occupancy or use is subject to the following special operating constraints.

- a. Allow only short-term or mitigable visual intrusions on VRM Class II lands.

On the lands described below:

- a. See attached

For the purpose of:

- a. Preserving the form, line, color or texture of the landscape so as not to attract the viewer's attention as described in the Diamond Mountain Resource Management Plan (refer to decision number VR01 in Chapter 2). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource value changes or the lessee/operator demonstrates that impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

**United States Department of Interior  
Bureau of Land Management  
Utah State Office: Diamond Mountain Resource Area**

**CONTROLLED SURFACE USE STIPULATION  
RED MOUNTAIN-DRY FORK COMPLEX  
CRITICAL SOILS, MUNICIPAL WATERSHEDS, FLOODPLAINS**

Serial No. \_\_\_\_\_  
GIS Map Reference: DM.MWP\$; ERODE2\$; HSALT\$; DM.FLP\$

[CODE DS\_C203, DS\_C204, DS\_C205, DS\_C206]

Surface occupancy or use is subject to the following special operating constraints.

- a. Preclude surface disturbing activities in areas of critical soils (highly saline and/or erodible), municipal watersheds and floodplains during times of saturated soils (usually Spring runoff and Fall rains).

On the lands described below:

- a. See attached

For the purpose of:

- a. Preserving and protecting critical soils, floodplains, and municipal watershed from severe erosion as described in the Diamond Mountain Resource Management Plan (refer to decision number RD36 in Chapter 3). Waivers, Exceptions, or Modifications to this limitation may be specifically approved in writing by the authorized officer of the Bureau of Land Management if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

ILLUSTRATION NO. 2-1

The following stipulations apply to the development of conventional oil and gas resources and to the exploration of tar sand resources.

1. In order to protect crucial winter elk habitat, surface disturbing activities will be allowed only during the period from April 1 to November 1.

This limitation does not apply to maintenance and operation of producing wells. This stipulation may be waived by the authorized officer if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

T14S, R22E

- Sec. 13:  $S\frac{1}{2}NE\frac{1}{4}$ ,  $S\frac{1}{2}SW\frac{1}{4}$ ,  $SE\frac{1}{4}$   
Sec. 22:  $NE\frac{1}{4}SE\frac{1}{4}$   
Sec. 23:  $NE\frac{1}{4}$ ,  $S\frac{1}{2}NW\frac{1}{4}$ ,  $S\frac{1}{2}$   
Sec. 24: All  
Sec. 25:  $N\frac{1}{2}$ ,  $NW\frac{1}{4}SW\frac{1}{4}$   
Sec. 26:  $N\frac{1}{2}$ ,  $N\frac{1}{2}SE\frac{1}{4}$

T15S, R22E

- Sec. 25:  $SE\frac{1}{4}SW\frac{1}{4}$ ,  $SE\frac{1}{4}$   
Sec. 28:  $SW\frac{1}{4}$ ,  $S\frac{1}{2}SE\frac{1}{4}$   
Sec. 29:  $S\frac{1}{2}SE\frac{1}{4}$   
Sec. 33: All  
Sec. 34:  $SW\frac{1}{4}NW\frac{1}{4}$ ,  $SW\frac{1}{4}$ ,  $W\frac{1}{2}SE\frac{1}{4}$ ,  $SE\frac{1}{4}SE\frac{1}{4}$   
Sec. 35:  $SW\frac{1}{4}SW\frac{1}{4}$

T14S, R23E

- Sec. 5:  $SE\frac{1}{4}SE\frac{1}{4}$   
Sec. 7:  $SE\frac{1}{4}SE\frac{1}{4}$   
Sec. 8:  $N\frac{1}{2}NE\frac{1}{4}$ ,  $SW\frac{1}{4}NE\frac{1}{4}$ ,  $S\frac{1}{2}NW\frac{1}{4}$ ,  $N\frac{1}{2}SW\frac{1}{4}$ ,  $SW\frac{1}{4}SW\frac{1}{4}$   
Sec. 17:  $S\frac{1}{2}SW\frac{1}{4}$   
Sec. 18: Lots 2, 3, 4,  $NE\frac{1}{4}$ ,  $SE\frac{1}{4}NW\frac{1}{4}$ ,  $S\frac{1}{2}$   
Sec. 19: All  
Sec. 20:  $W\frac{1}{2}$   
Sec. 29:  $NW\frac{1}{4}$ ,  $NW\frac{1}{4}SW\frac{1}{4}$   
Sec. 30: Lots 1, 2,  $N\frac{1}{2}$ ,  $NE\frac{1}{4}SW\frac{1}{4}$ ,  $N\frac{1}{2}SE\frac{1}{4}$ ,  $SE\frac{1}{4}SE\frac{1}{4}$   
Sec. 31:  $NE\frac{1}{4}NE\frac{1}{4}$

T15S, R23E

- Sec. 1: Lots 1, 2, 3, 4,  $S\frac{1}{2}NW\frac{1}{4}$ ,  $NW\frac{1}{4}SW\frac{1}{4}$   
Sec. 4:  $W\frac{1}{2}SW\frac{1}{4}$   
Sec. 5:  $SE\frac{1}{4}$   
Sec. 8:  $E\frac{1}{2}$ ,  $S\frac{1}{2}NW\frac{1}{4}$ ,  $SW\frac{1}{4}$   
Sec. 9:  $NW\frac{1}{4}NW\frac{1}{4}$ ,  $W\frac{1}{2}SW\frac{1}{4}$   
Sec. 17:  $NW\frac{1}{4}NE\frac{1}{4}$ ,  $N\frac{1}{2}NW\frac{1}{4}$   
Sec. 30: Lot 5  
Sec. 31: Lots 1, 2, 3, 4,  $NE\frac{1}{4}SW\frac{1}{4}$

**Oil, Gas, and Combined Hydrocarbon Lease Stipulations**

The following stipulations apply to the development of conventional oil and gas resources and to the exploration of tar sand resources.

[CODE BC\_UTBC1]

1. In order to protect crucial winter elk habitat, surface disturbing activities will be allowed only during the period from April 1 to November 1.

This limitation does not apply to maintenance and operation of producing wells. This stipulation may be waived by the authorized officer if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated (Figure 2-5).

[CODE BC\_UTBC2]

2. In order to protect crucial elk calving and deer fawning habitat, exploration, drilling, and other development activity will be allowed only during the period from June 30 to May 15.

This limitation does not apply to maintenance and operation of producing wells. This stipulation may be waived by the authorized officer if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated (Figure 2-6).

[CODE BC\_UTBC3]

3. In order to protect the migration of deer along Monument Ridge, surface disturbing activities will be allowed only during the period from June 1 to May 10.

This limitation does not apply to maintenance and operation of producing wells. This stipulation may be waived by the authorized officer if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated (Figure 2-6).

[CODE BC\_UTBC4]

4. In order to protect the seasonal nesting and strutting period of sage grouse, surface disturbance, exploration, drilling, and other development activity will be allowed only during the period from June 15 to March 15.

This limitation does not apply to maintenance and operation of producing wells. This stipulation may be waived by the authorized officer if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated (Figure 2-5).

5. No drilling or storage facilities will be allowed within 300 feet of the sage grouse strutting grounds. This stipulation may be waived by the authorized officer if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated (Figure 2-5). [CODE BC\_UTBC5]

6. In order to protect the biannual migration of deer on McCook Ridge and to protect the crucial winter deer and elk habitat, surface disturbing activities will be allowed only during the period from June 1 to October 1. [CODE BC\_UTBC6]

This limitation does not apply to maintenance and operation of producing wells. This stipulation may be waived by the authorized officer if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated (Figure 2-5).

7. No surface disturbance or occupancy will be allowed within riparian habitat. This stipulation may be waived by the authorized officer if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated (Figure 2-7). [CODE BC\_UTBC7]

8. No surface disturbance or occupancy will be allowed within the 100 year floodplains of the following Creeks: Bitter, Evacuation, Hill, Sweetwater, and Willow; and the Green and White Rivers. This stipulation may be waived by the authorized officer if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated (Figure 2-7). [CODE BC\_UTBC8]

9. No occupancy or other activity on the surface of (\_\_\_\_\_) is allowed under this lease in order to protect the designated public water reserve (Figure 2-7). [CODE BC\_UTBC9]

10. In order to protect the Boulevard Ridge Watershed Study Area, no occupancy or other surface disturbance on the surface of \_\_\_\_\_, is allowed under this lease (Figure 2-7). [CODE BC\_UTBC10]

11. To protect the visual resources, no occupancy or other surface disturbance will be allowed within 2500 feet north of the highway. This limitation does not apply to maintenance and operation of producing wells. This stipulation may be waived by the authorized officer if either the resource [CODE BC\_UTBC11]



[CODE BC\_UTBC12]

values change or the lessee/operator demonstrates that adverse impacts can be mitigated (Figure 2-8).

12. To protect the visual resources, no occupancy or other surface disturbance will be allowed on slopes in excess of 40 percent without written permission of the authorized officer of the Federal Surface Management Agency (Figure 2-8).

[CODE BC\_UTBC13]

13. No access road, earth cut and fill, and structures other than an active drilling rig, will be permitted if it can be viewed from designated areas of the White River. This limitation does not apply to maintenance and operation of producing wells. This stipulation may be waived by the authorized officer if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated (Figure 2-8).

[CODE BC\_UTBC14]

14. No occupancy on the right-of-way for the proposed White River Dam and Reservoir is allowed under this lease (Figure 2-7).

[CODE BC\_UTBC15]

15. All of the land in this lease is included in the White River Recreation and Wildlife Corridor. Therefore, no occupancy or disturbance of the surface of the land described in this lease is authorized. The lessee, however, may extract the oil and gas resources in this lease by directional drilling from sites outside this lease. If a proposed drilling site lies on land administered by the Bureau of Land Management, a permit for use of the site must be obtained from the BLM District Manager before drilling or other development begins (Figure 2-7).

[CODE BC\_UTBC16]

16. All of the land in this lease is included in the Green River Recreation and Wildlife Corridor. Therefore, no occupancy or disturbance of the surface of the land described in this lease is authorized. The lessee, however, may extract the oil and gas resources in this lease by directional drilling from sites outside this lease. If a proposed drilling site lies on land administered by the Bureau of Land Management, a permit for use of the site must be obtained from the BLM District Manager before drilling or other development begins (Figure 2-7).

[CODE BC\_UTBC17]

17. No occupancy or other activity on the surface of the following described lands within the Bookcliffs Natural Area is allowed

under this lease. Location: T.15S., R.25E., SLBM, Sec. 17, SW $\frac{1}{4}$  Sec. 18, E $\frac{1}{2}$ SE $\frac{1}{4}$ , Sec. 19, E $\frac{1}{2}$ NE $\frac{1}{4}$ , Sec. 20, N $\frac{1}{2}$ NW $\frac{1}{4}$  (Figure 2-9).

18. No occupancy or other activity on the surface of the following described lands within the Hideout Campground is allowed under this lease. Location: T.14S., R.23E., Sec. 30, SW $\frac{1}{4}$ SE $\frac{1}{4}$  (Figure 2-9).

19. No occupancy or other activity on the surface of the following described lands within the Fantasy Canyon is allowed under this lease. Location: T.9S., R.22E., Sec. 12, E $\frac{1}{2}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ , NE $\frac{1}{4}$ NW $\frac{1}{4}$  (Figure 2-9).

20. No occupancy or other activity on the surface of the following described lands within the Duck Rock geological site is allowed under this lease. Location: T.10S., R.24E., Sec. 12, NW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$  (Figure 2-9).

21. No occupancy or other activity on the surface of the following described lands within the Musket Shot Springs is allowed under this lease. Location: T.6S., R.24E., Sec. 9, SW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$  (Figure 2-9).

22. No occupancy or other activity on the surface of the following described lands within the Point of Pines Picnic Site and Scenic Overlook is allowed under this lease. Location: T.5S., R.25E., Sec. 20, S $\frac{1}{2}$  Sec. 29, NW $\frac{1}{4}$  (Figure 2-9).

23. No occupancy or other activity on the surface of the following described lands within the Bookcliffs Rim Campground is allowed under this lease. Location: T.16S., R.25E., Sec. 5, SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ , NW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ ; Sec. 6, S $\frac{1}{2}$ NE $\frac{1}{4}$  NE $\frac{1}{4}$ , N $\frac{1}{2}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$  (Figure 2-9).

24. No occupancy or other activity on the surface of the following described lands within the PR Spring Campground is allowed under this lease. Location: T.15S., R.23E., Sec. 36, SE $\frac{1}{4}$ SE $\frac{1}{4}$ ; T.15S., R.24E., Sec. 31, SW $\frac{1}{4}$ SW $\frac{1}{4}$  (Figure 2-9).

25. No occupancy or other activity on the surface of the following described lands within the Atchee Ridge Campground is allowed under this lease. Location: T.13S., R.25E., Sec. 27, SE $\frac{1}{4}$ NE $\frac{1}{4}$  (Figure 2-9).

26. No occupancy or other activity on the surface of the following described lands within the Chicken Spring Campground is allowed under this lease. Location: T.15 $\frac{1}{2}$ S., R.24E., Sec. 34, NW $\frac{1}{4}$ SE $\frac{1}{4}$ , E $\frac{1}{2}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ , SE $\frac{1}{4}$ SW $\frac{1}{4}$  (Figure 2-9).

[CODE BC\_UTBC27]

27. In order to protect crucial calving and deer fawning habitat and sage grouse strutting grounds, exploration, drilling, and other development activity will be allowed only during the period from June 30 to March 15.

This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year must be specifically approved by the authorized officer of the Federal Surface Management Agency (Figure 2-5).

**Information Notice**

White River, CO BLM



**Appendix A**  
**(Table A-1 Continued)**

	<p>Raptor Nests - Listed and Candidate T/E Species, BLM Sensitive Species</p>	<p>10,350</p>	<p>Special Status Raptors. This area encompasses the nests of special status raptors, including listed, proposed, or candidate species for listing under the Endangered Species Act and BLM sensitive species. Surface occupancy is not allowed within 1/4 mile of the identified nests.</p> <p>EXCEPTION: An exception may be granted by the Area Manager, if authorization is obtained from the USFWS (through applicable provisions of the Endangered Species Act, Eagle Protection Act, or Migratory Bird Treaty Act), to interrupt active nesting attempts and/or cause short or long term adverse modification of suitable nest site characteristics. An exception may also be granted by the Area Manager if it is determined that the nature or conduct of the proposed or conditioned activity would not impair the function or utility of the nest site for current or subsequent nest activities or occupancy.</p> <p>MODIFICATION: Site specific modifications to the NSO area may be granted by the Area Manager pending determination that a portion of the NSO area is not essential to nest site functions or utility; or that the nature or conduct of the activity, as proposed or conditioned, would not impair the function or utility of the nest site for current or subsequent nest activities or occupancy. The stipulation may also be modified if the proponent, BLM, and where necessary, other affected interests, negotiate compensation that satisfactorily offsets anticipated impacts to raptor breeding activities and/or habitats. Modifications could also occur if sufficient information is provided that supports the contention that the action would not contribute to the suppression of breeding population densities or the population's production or recruitment regime from a Geographic Reference Area perspective. If a species status is downgraded, or delisted, the NSO buffer area may be modified to an appropriate level.</p> <p>WAIVER: A waiver may be granted if the species becomes extinct or if site conditions change such that there is no reasonable likelihood of occupation for a subsequent minimum period of 10 years.</p>
	<p>[CODE WR2]</p>		

(Table A-1 Continued)

<p>Raptor Nests - Other than special status raptors.</p> <p>[CODE WR3]</p>	<p>20,900</p>	<p>Other Raptors. This area encompasses raptor nests of other than special status raptor species. Surface Occupancy is not allowed within 1/8 mile of identified nests.</p> <p>EXCEPTION: An exception may be granted by the Area Manager if authorization is obtained from the USFWS (through applicable provisions of the Endangered Species Act, Eagle Protection Act, or Migratory Bird Treaty Act), to interrupt active nesting attempts and/or cause short or long term adverse modification of suitable nest site characteristics. The Area Manager may also grant an exception if an environmental analysis finds that the nature or conduct of the action, as proposed or conditioned, would not impair the function or utility of the nest site for current or subsequent nest activities or occupancy.</p> <p>MODIFICATION: Site specific modifications to the NSO area may be granted by the Area Manager pending determination that a portion of the NSO area is not essential to nest site functions or utility; or that the nature or conduct of the activity, as proposed or conditioned, would not impair the function or utility of the nest site for current or subsequent nest activities or occupancy. The stipulation may also be modified if the proponent, BLM, and where necessary, other affected interests, negotiate compensation that satisfactorily offsets anticipated impacts to candidate raptor breeding activities and/or habitats. Modifications could also occur if sufficient information is provided that supports the contention that the action would not contribute to the suppression of breeding population densities or the population's production or recruitment regime from a Geographic Reference Area perspective.</p> <p>WAIVER: A waiver may be granted by the Area Manager if documentation shows the nest site has been abandoned for a minimum of 3 years; or that the site conditions, including surrounding nest habitat, have changed such that there is no reasonable likelihood of site occupation for a subsequent minimum period of 10 years.</p>
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**Appendix A**  
**(Table A-1 Continued)**

	<p>Sage grouse leks</p> <p>[CODE WR4]</p>	<p>5,490</p>	<p>Sage Grouse Leks. This area encompasses sage grouse leks. Surface Occupancy is not allowed within 1/4 mile of identified lek sites.</p> <p><b>EXCEPTION:</b> An exception may be granted by the Area Manager if an environmental analysis determines that the action, as proposed or conditioned, would not impair the function or utility of the site for current or subsequent reproductive display, including daytime loafing/staging activities.</p> <p><b>MODIFICATION:</b> The NSO area may be modified in extent, or substituted with a timing limitation, by the Area Manager if an environmental analysis finds that a portion of the NSO area is nonessential to site utility or function, or that the proposed action could be conditioned so as not to impair the function or utility of the site for current or subsequent reproductive display, including daytime loafing/staging activities. The stipulation may also be modified if the proponent, BLM, CDOW, and where necessary, other affected interests, negotiate compensation that satisfactorily offsets anticipated impacts to sage grouse breeding activities and/or habitats.</p> <p><b>WAIVER:</b> This stipulation may be waived if, in cooperation with the Colorado Division of Wildlife, it is determined that the site has been permanently abandoned or unoccupied for a minimum of 5 years; site conditions have changed such that there is no reasonable likelihood of site occupation for a subsequent minimum period of 10 years.</p>
	<p>Bald eagle roost/concentration area</p> <p>[CODE WR5]</p>	<p>830</p>	<p>Bald Eagle Roosts. This area encompasses bald eagle nocturnal roosts and/or concentration areas. Surface occupation is not allowed within 1/4 mile of designated features.</p> <p><b>EXCEPTION:</b> An exception may be granted by the Area Manager if authorization is obtained from the USFWS (through applicable provisions of the Endangered Species Act, Eagle Protection Act, or Migratory Bird Treaty Act), to interrupt roosting activities and/or cause short or long term adverse modification of suitable roost site characteristics. The Area Manager may also grant an exception if an environmental analysis indicates that the nature or conduct of the action, as proposed or conditioned, would not impair the function or utility of the site for current or subsequent roosting activities or occupancy.</p> <p><b>MODIFICATIONS:</b> The NSO may be modified by the Area Manager if an environmental analysis indicates that a portion of the area is nonessential to roost site function or utility; or that the proposed action could be conditioned to not impair the function or utility of the site for current or subsequent roosting activities or occupancy. The stipulation may also be modified commensurate with changes in species status.</p> <p><b>WAIVER:</b> The stipulation may be waived if the species becomes extinct or if the site has failed to support roosting activities over a minimum three year period. A waiver may also apply if the area has changed such that there is no reasonable likelihood of site occupation for a subsequent minimum period of 10 years.</p>

(Table A-1 Continued)

	<p>ACECs                  -Dudley Bluffs (1,630 acres)                  -Yanks Gulch/Upper Greasewood Creek (2,680 acres)                  -Lower Greasewood Creek (210 acres)                  -Raven Ridge (2,090 acres) -                  South Cathedral Bluffs (320 acres)                  -Deer Gulch (1810 acres)                   -Ryan Gulch (1,440 acres)                  -South Cathedral Bluffs Addition (1,010 acres)                  -Raven Ridge Addition (2,890 acres)                  -Blacks Gulch (800 acres)                  -Coal Draw (1,840 acres)                  -Moosehead (10,220 acres)                  -Duck Creek (3430 Acres)</p>	<p>30,370 acres</p>	<p>ACECs. These ACECs contain vertebrate and/or invertebrate fossils of high scientific value or possess plant species that are listed as T/E, candidates for listing, BLM sensitive, State of Colorado plant species of concern, or remnant vegetation associations. Surface occupancy or disturbance will not be allowed within the boundaries of the ACEC.</p> <p>EXCEPTION: The Area Manager may grant an exception to this stipulation if, after an on the ground plant inventory is conducted, an environmental analysis indicates that the nature or conduct of the action, as proposed or conditioned, would not directly or indirectly affect the identified important values of the ACEC.</p> <p>MODIFICATION: None.</p> <p>WAIVER: NONE.</p>
	<p>Duck Creek Wickiup Site</p>	<p>3</p>	<p>DUCK CREEK WICKIUP SITE. This site is listed on the National Register of Historic Places. Surface occupancy is not allowed within this site.</p> <p>EXCEPTION: None.</p> <p>MODIFICATION: None.</p> <p>WAIVER: none. [CODE WR7]</p>
	<p>Known and Potential Habitat for Listed and Candidate T/E Plant Species</p>	<p>46,840</p>	<p>Known and Potential Habitat of Listed and Candidate T/E Plant Species. This area contains T/E plants, candidate T/E plants, or potential habitat for these plants. No surface occupancy will be allowed on mapped populations of these plants.</p> <p>EXCEPTION: The Area Manager may grant an exception if an inventory and subsequent environmental analysis indicates that the nature or conduct of the action, as proposed or conditioned, would not directly or indirectly affect plant populations.</p> <p>MODIFICATION: None.</p> <p>WAIVER: NONE. [CODE WR8]</p>



**Appendix A**  
**(Table A-1 Continued)**

	<p>BLM Sensitive Plants and Remnant Vegetation Associations (RVA)</p> <p>[CODE WR9]</p>	<p>4,520</p>	<p><b>SENSITIVE PLANTS AND REMNANT VEGETATION ASSOCIATIONS.</b> This area contains BLM sensitive plants and remnant vegetation associations. Surface occupation will not be allowed within known populations of these plants.</p> <p><b>EXCEPTION:</b> The Area Manager may grant an exception if an inventory and subsequent environmental analysis indicates that the nature or conduct of the action, as proposed or conditioned, would not directly or indirectly affect plant populations. An exception may also be applied if the NSO would hinder or preclude the exercise of valid existing rights. Under that circumstance, protection of the plants would be afforded through Conditions of Approval, that would require reclamation of disturbed areas to include utilizing native seed mixes in RVAs, and reproducing sensitive species via transplant or some other means in areas containing sensitive species.</p> <p><b>MODIFICATION:</b> None.</p> <p><b>EXCEPTION:</b> None.</p>
	<p>Oak Ridge State Wildlife Area</p> <p>[CODE WR10]</p>	<p>9,300</p>	<p><b>OAK RIDGE STATE WILDLIFE AREA.</b> This area involves federal lands within the perimeter of the Oak Ridge State Wildlife Area. Surface occupancy is not allowed within the designated area.</p> <p><b>EXCEPTION:</b> The Area Manager may grant an exception, in consultation with the Colorado Division of Wildlife, if an environmental analysis finds that the proposed action could be conditioned to be compatible with the wildlife values and public uses associated with the area.</p> <p><b>MODIFICATION:</b> None.</p> <p><b>WAIVER:</b> None.</p>

**Table A-2 Controlled Surface Use Stipulations**

	Protected Resource	Affected acreage	Stipulation Description
	fragile soils on slopes > 35% and Saline soils derived from Mancos Shale  [CODE WR11]	536,260	<p>Fragile Soils on Slopes Greater Than 35 Percent and Saline Soils. Surface disturbing activities will be allowed in these areas only after an engineered construction/reclamation plan is submitted by the operator and approved by the Area Manager. The following items must be addressed in the plan: 1) How soil productivity will be restored; 2) How surface runoff will be treated to avoid accelerated erosion such as riling, gullyng, piping, and mass wasting;</p> <p>EXCEPTION: An exception may be granted by the Area Manager if an environmental analysis of the proposed action identifies that the scale of the operation would not result in any long term decrease in site productivity or increased erosion. An exception may also be granted by the Area Manager if a more detailed soil survey determines that soil properties associated with the disturbance do not meet fragile soil criteria.</p> <p><b>MODIFICATION:</b> None</p> <p><b>WAIVER:</b> None</p>
	ACECs  -White River Riparian (950 acres)  -Coal Oil Rim (3,210 acres),  -Oil Spring Mountain (18,260 acres)  -East Douglas Creek (61,395 acres)  [CODE WR12]	83,815 acres	<p>ACECs. These ACECs are known to contain, or have potential to contain, T/E plants or plants that are candidates for listing as T/E, State of Colorado plant species of concern, BLM sensitive plants, remnant vegetation associations, and/or unique plant communities. A plant inventory will be conducted prior to approving any surface disturbing activities within the ACEC boundaries. Surface disturbance will not be allowed within mapped locations of these plants. The presence of the above listed plants would require relocating surface disturbance or facilities more than 200 meters. The timing required for conducting the plant inventories may require deferring activities longer than 60 days.</p> <p>EXCEPTION: This stipulation may be excepted by the Area Manager if an environmental analysis of the proposed action indicates that the plants of concern would not be affected.</p> <p><b>MODIFICATION:</b> None.</p> <p><b>WAIVER:</b> None.</p>

**Appendix A**  
**(Table A-2 Continued)**

	<p>Ferret Reintroduction Area</p>	<p>53,830</p>	<p>Black-footed Ferret Reintroduction Area. This is a controlled surface use area for promoting the reestablishment and development of a self-sustaining black-footed ferret population. Prior to authorizing activities in this area, the Area Manager will confer or consult with the USFWS as required by Section 7 of the Endangered Species Act. Depending on the scope of the proposed action, a plan of development may be required that demonstrates how the proposed activities would be conducted or conditioned to: 1) avoid the direct or indirect loss of black-footed ferrets; or 2) avoid affecting the capability of the site to achieve reestablishment objectives. The Area Manager may impose land use measures and limitations derived from a site specific ferret reintroduction and management plan. The measures and limitations would be designed to avoid, or reduce to acceptable levels, the short and long term adverse affects on ferret survival, behavior, reproductive activities, and/or the area's capacity to sustain ferret population objectives. Examples of measures and limitations include: 1) relocation of surface activities more than 200 meters; 2) deferring activities longer than 60 days; 3) limiting access to designated roads and trails; 4) modifications to project design to discourage raptor perching and prohibit the disruption of certain or all prairie dog burrow systems; 5) limit surface disturbance to certain seasons and times of day; 6) require participation in ferret surveys and/or efforts to offset loses of, or expand suitable prairie dog habitats to compensate for unavoidable habitat loss or adverse habitat modification.</p> <p><b>EXCEPTION:</b> The Area Manager may authorize surface disturbance or use within these areas if an environmental analysis, and associated biological assessment, finds that the activity as proposed of conditioned, would not adversely influence ferret recovery, or conflict with the ferret reintroduction and management plan.</p> <p><b>MODIFICATION:</b> The Area Manager may modify the terms of the CSU if the proposed action is shown to be compatible with ferret recovery goals and/or the ferret reintroduction and management plan.</p> <p><b>WAIVER:</b> The Area Manager may grant a waiver if extirpation of wild, free roaming ferret populations culminates in the discontinuance of the species recovery program, or local reintroduction efforts are otherwise abandoned.</p>
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(Table A-2 Continued)

	<p>Aspen, Serviceberry, and Chokecherry Communities</p>	<p>61,540</p>	<p>Blue Mountain Deciduous Browse/Aspen Communities. This is a controlled surface use area in order to maintain the distribution, condition, and functional capacity of deciduous browse and aspen communities integral to high priority big game and blue grouse habitats. Prior to authorizing activities in this area, the proponent/applicant would be required to submit a plan of development that would demonstrate that: 1) involvement of aspen, serviceberry, and chokecherry associations have been avoided to the extent possible; 2) special reclamation measures or design features would promote accelerated recovery or establishment of desirable plant community components; 3) the potential or capacity of the area to support viable, self sustaining aspen, serviceberry, and chokecherry communities has not been diminished; 4) involvement of community derived values are mitigated through project life commensurate with projected impacts. Surface disturbance or occupation within aspen, serviceberry, and chokecherry communities may be prohibited.</p> <p><b>EXCEPTION:</b> The Area Manager may authorize actions within this area, without a plan of development, if an environmental analysis indicates that the proposed action would not involve or adversely affect the desirable attributes of the deciduous browse/aspen communities, or their wildlife related functions. Surface disturbance and occupation may also be authorized if established impacts to community derived habitat values would be compensated or offset to the satisfaction of the Area Manager.</p> <p><b>MODIFICATION:</b> Integral with exception and stipulation.</p> <p><b>WAIVER:</b> None</p>
<p>[CODE WR15]</p>	<p>Bald Eagle Nest, Roost, and Perch Habitat</p>	<p>6,720</p>	<p>Bald Eagle Nest, Roost, and Perch Substrate. This is a controlled surface use area for maintaining the long term suitability, utility and development opportunities for specialized habitat features involving nest, roost, and perch substrate on federal lands. Prior to authorizing surface disturbance within this area, and pending conferral or consultation with the USFWS as required by the Endangered Species Act, the Area Manager may require the proponent/applicant to submit a plan of development that would demonstrate that: 1) involvement of cottonwood stands or cottonwood regeneration areas have been avoided to the extent practicable; 2) special reclamation measures or design features are incorporated that would accelerate recovery and/or reestablishment of affected cottonwood communities; 3) the pre-development potential of affected floodplains to develop or support riverine cottonwood communities has not been diminished; and 4) the current/future utility of such cottonwood substrate for bald eagle use would not be impaired.</p> <p><b>EXCEPTION:</b> The Area Manager may grant an exception to this stipulation if an environmental analysis indicates that the proposed or conditioned activities would not affect the long term suitability or utility of habitat features or diminish opportunities for natural floodplain functions. Surface disturbance and occupation may also be authorized in the event that established impacts to habitat values would be compensated or offset to the satisfaction of the BLM in consultation with USFWS and CDOW.</p> <p><b>MODIFICATION:</b> Integral with exception and stipulation.</p> <p><b>WAIVER:</b> None</p>

**Appendix A**  
**(Table A-2 Continued)**

	<p>Colorado River Cutthroat Trout Habitat</p>	<p>67,830</p>	<p>Colorado River Cutthroat Trout Habitat. This is a controlled surface use area for protecting aquatic habitats occupied by populations of Colorado River cutthroat trout. Prior to authorizing surface disturbance of occupied stream reaches or within watersheds contributing to occupied habitats, the Area Manager may require the proponent/applicant to submit a plan of development that would demonstrate that the proposed action would not: 1) increase stream gradient; 2) result in a net increase in sediment contribution; 3) decrease stream channel sinuosity; 4) increase the channel width to depth ratio; 5) increase water temperature; 6) decrease vegetation derived stream shading; and 7) degrade existing water quality parameters, including specific conductance, turbidity, organic/inorganic contaminant levels, and dissolved oxygen in occupied reaches or contributing perennial or intermittent tributaries. If approvals are granted and development results in these standards being exceeded, additional measures would be required to correct the deficiencies. The proponent may be required to monitor stream/channel responses throughout the life of the project.</p> <p><b>EXCEPTION:</b> The Area Manager may authorize surface disturbance in these areas if an environmental analysis indicates that the project would have no adverse influence on identified stream characteristics.</p> <p><b>MODIFICATION:</b> Short term transgressions of the stream characteristics listed above may be allowed if the Area Manager determines, through environmental analysis, that short term deviations will have no adverse consequences on affected channel reaches beyond the construction phase of the project.</p> <p><b>WAIVER:</b> In the event the population status of Colorado River cutthroat trout warrants downgrading, this stipulation may be replaced by less stringent criteria.</p>
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[CODE WR16]

(Table A-2 Continued)

<p>Canyon Pintado National Historic District</p> <p>[CODE WR17]</p>	<p>16,040</p>	<p>Canyon Pintado National Historic District. This is a controlled surface use area for the protection of cultural resources. The Area Manager may approve actions within this area if an environmental analysis and inventory indicates that the proposed action is compatible with the intent of the Historic District, and can comply with Historic District cultural resource protection requirements. All proposed actions will be reviewed for conflicts with known archaeological or historical resources. In areas of conflicts, a pedestrian inventory of the proposed project area will be completed by a qualified archaeologist using standards specified by the BLM. The Area Manager may require that a qualified archaeologist be present to monitor operations during surface disturbing activities. If archaeological resources are located during the inventory, the proposed action will be relocated to avoid and protect the cultural values. Proposed actions that produce vibrations will be located a distance far enough away from rock art or structural features to allow full attenuation of the vibration before it gets to the resource of concern. All inventories are required to be submitted to the BLM in report form and are subject to review by the Colorado State Historic Preservation Office and the Advisory Council on Historic Preservation prior to approval of the proposed action. Surface Occupation may not be allowed to occur in order to protect cultural resources.</p> <p><b>EXCEPTION:</b> None</p> <p><b>MODIFICATION:</b> None</p> <p><b>WAIVER:</b> None</p>
<p>Coal Mine</p> <p>[CODE WR18]</p>	<p>8,146</p>	<p><b>Permitted Coal Mine.</b> This area is included in the approved permit area for the Deserado Coal Mine. The oil and gas lessee must reach agreement with the federal coal lessee on the placement of wells or surface facilities within the coal mine permit area. Surface occupation may not be allowed within the mine permit area.</p> <p><b>EXCEPTION:</b> The Area Manager may grant an exception to this stipulation if the coal lessee and the oil and gas lessee have reached an agreement as to the location of well(s) and surface facilities.</p> <p><b>MODIFICATION:</b> NONE</p> <p><b>WAIVER:</b> The Area Manager may waive this stipulation if the coal mining operation is abandoned.</p>

**Appendix A**

**Table A-3 Timing Limitation Stipulations**

	Protected Resource	Affected Acreage	Stipulation Description
	<p>Raptor Nesting Sites (Listed and Candidate T/E and BLM Sensitive species except Bald Eagle and Ferruginous Hawks)</p> <p>[CODE WR19]</p>	<p>1,510</p>	<p>Listed, Proposed, or Candidate T/E and BLM Sensitive Raptors Other Than Bald Eagles and Ferruginous Hawks. This area encompasses the nests of threatened, endangered, or candidate raptors. No development activities are allowed within 1/2 mile of identified nest sites from February 1 through August 15, or until fledgling and dispersal of young. (Development activities allowed from August 16 through January 31).</p> <p><b>EXCEPTION:</b> An exception may be granted to these dates by the Area Manager, if authorization is obtained from the USFWS (through applicable provisions of the Endangered Species Act, Eagle Protection Act, or Migratory Bird Treaty Act) to harass, harm, wound, or kill in the context of active nesting attempts. An exception can also be granted if an environmental analysis of the proposed action indicates that nature or conduct of the activity could be conditioned so as not to impair the utility of nest for current or subsequent nesting activity or occupancy. The Area Manager may also grant an exception if the nest is unattended or remains unoccupied by May 15 of the project year.</p> <p><b>MODIFICATION:</b> The Area Manager may modify the size of the stipulation area if an environmental analysis indicates that a portion of the area is nonessential to nest utility or function, or that the proposed action could be conditioned so as not to impair the utility of the nest site for current or subsequent nest activities or occupation. The stipulation may also be modified if the proponent, BLM, and where necessary, other affected interests, negotiate compensation that satisfactorily offsets anticipated impacts to raptor breeding activities and/or habitats. Modifications could also occur if sufficient information is provided that supports the contention that the action would not contribute to the suppression of breeding population densities or the population's production or recruitment regime from a Geographic Reference Area perspective. If a species status is downgraded, or if a species is delisted, the size of the TL area may be reduced.</p> <p><b>WAIVER:</b> A waiver may be granted if the species becomes extinct or there is no reasonable likelihood of site occupation over a minimum 10 year period.</p>

(Table A-3 Continued)

	<p>Bald Eagle Nests</p>	<p>250</p>	<p><b>Bald Eagle Nests.</b> This area encompasses bald eagle nests. No development is allowed within 1/2 mile of identified nests from December 15 through July 15, or until fledgling and dispersal of young. (Development activities allowed from July 16 through December 14).</p> <p><b>EXCEPTION:</b> An exception may be granted to these dates by the Area Manager, if authorization is obtained from the USFWS (through applicable provisions of the Endangered Species Act, Eagle Protection Act, or Migratory Bird Treaty Act) to harass, harm, wound, or kill in the context of active nesting attempts. An exception can also be granted if an environmental analysis of the proposed action indicates that nature or conduct of the activity could be conditioned so as not to impair the utility of nest for current or subsequent nesting activity or occupancy. The Area Manager may also grant an exception if the nest is unattended or remains unoccupied by May 15 of the project year.</p> <p><b>MODIFICATION:</b> The Area Manager may modify the size of the stipulation area if an environmental analysis indicates that a portion of the area is nonessential to nest utility or function, or that the proposed action could be conditioned so as not to impair the utility of the nest site for current or subsequent nest activities or occupation. If the species status is downgraded, or if the species is delisted, the size of the TL area may be reduced.</p> <p><b>WAIVER:</b> A waiver may be granted if the nest has remained unoccupied for a minimum of three years or conditions have changed such that there is no reasonable likelihood of site occupation over a minimum 10 year period.</p>
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[CODE WR20, WR\_BE\_NST, WR\_RAPBE\_NST]



**Appendix A**  
**(Table A-3 Continued)**

	<p>Ferruginous Hawks</p>	<p>73,880</p>	<p>Ferruginous Hawks. This area encompasses the nests of ferruginous hawks which are candidates for listing under the Endangered Species Act. No development is allowed within one (1) mile of identified nests from February 1 through August 15, or until fledgling and dispersal of young. (Development activities allowed from August 16 through January 31).</p> <p><b>EXCEPTION:</b> An exception may be granted to these dates by the Area Manager, if authorization is obtained from the USFWS (through applicable provisions of the Endangered Species Act, Eagle Protection Act, or Migratory Bird Treaty Act) to harass, harm, wound, or kill in the context of active nesting attempts. An exception can also be granted if an environmental analysis of the proposed action indicates that nature or conduct of the activity could be conditioned so as not to impair the utility of nest for current or subsequent nesting activity or occupancy. The Area Manager may also grant an exception if the nest is unattended or remains unoccupied by May 15 of the project year.</p> <p><b>MODIFICATION:</b> The Area Manager may modify the size of the stipulation area if an environmental analysis indicates that a portion of the area is nonessential to nest utility or function, or that the proposed action could be conditioned so as not to impair the utility of the nest site for current or subsequent nest activities or occupation. The stipulation may also be modified if the proponent, BLM, and where necessary, other affected interests, negotiate compensation that satisfactorily offsets anticipated impacts to raptor breeding activities and/or habitats. Modifications could also occur if sufficient information is provided that supports the contention that the action would not contribute to the suppression of breeding population densities or the population's production or recruitment regime from a Geographic Reference Area perspective. If the species status is downgraded, or if the species is delisted, the size of the TL area may be reduced.</p> <p><b>WAIVER:</b> A waiver may be granted if the nest has remained unoccupied for a minimum of three years or conditions have changed such that there is no reasonable likelihood of site occupation over a minimum 10 year period.</p>
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[CODE WR21, WR\_RAPFEHA]

(Table A-3 Continued)

	<p>Raptor Nests (other than T/E and candidate T/E species)</p>	<p>72,680</p>	<p>Other Raptors. This area encompasses the nests of raptors that are other than threatened, endangered, or candidate species. No development activities are allowed within 1/4 mile of identified nests from February 1 through August 15, or until fledgling and dispersal of young. (Development allowed from August 16 through January 31)</p> <p>EXCEPTION: An exception may be granted to these dates by the Area Manager, if authorization is obtained from the USFWS (through applicable provisions of the Endangered Species Act, Eagle Protection Act, or Migratory Bird Treaty Act) to harass, harm, wound, or kill in the context of active nesting attempts. An exception can also be granted if an environmental analysis of the proposed action indicates that nature or conduct of the activity could be conditioned so as not to impair the utility of nest for current or subsequent nesting activity or occupancy. The Area Manager may also grant an exception if the nest is unattended or remains unoccupied by May 15 of the project year.</p> <p>MODIFICATION: The Area Manager may modify the size of the stipulation area if an environmental analysis indicates that a portion of the area is nonessential to nest utility or function, or that the proposed action could be conditioned so as not to impair the utility of the nest site for current or subsequent nest activities or occupation. The stipulation may also be modified if the proponent, BLM, and where necessary, other affected interests, negotiate compensation that satisfactorily offsets anticipated impacts to raptor breeding activities and/or habitats. Modifications could also occur if sufficient information is provided that supports the contention that the action would not contribute to the suppression of breeding population densities or the population's production or recruitment regime from a Geographic Reference Area perspective.</p> <p>WAIVER: A waiver may be granted if the nest has remained unoccupied for a minimum of three years or conditions have changed such that there is no reasonable likelihood of site occupation over a minimum 10 year period.</p>
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[CODE WR22, WR\_RAP, WR\_RAP\_GOSH]

**Appendix A**  
**(Table A-3 Continued)**

	<p>Bald Eagle Roost or Concentration Areas</p> <p>[CODE WR23]</p>	<p>4,590</p>	<p>Bald Eagle Winter Roosts and Concentration Areas. This area encompasses bald eagle winter roosts and concentration areas. No development is allowed within 1/2 mile of identified sites from November 15 through April 15. (Development allowed from April 16 through November 14)</p> <p>EXCEPTION: An exception may be granted to these dates by the Area Manager, if authorization is obtained from the USFWS (through applicable provisions of the Endangered Species Act, Eagle Protection Act, or Migratory Bird Treaty Act) to harass, harm, wound, or kill in the context of ongoing roosting activities and/or short or long term adverse modification of suitable roost site characteristics. An exception can also be granted if an environmental analysis of the proposed action indicates that nature or conduct of the activity could be conditioned so as not to impair the utility of the site for current or subsequent roosting activities or occupancy. An exception may also be granted if forms of compensation are satisfactorily negotiated (through Section 7 Consultation) which fully offset losses associated with project implementation.</p> <p>MODIFICATION: The Area Manager may modify the size of the stipulation area or timeframes if an environmental analysis indicates that a portion of the area is nonessential to roost site function and utility, or that the proposed action could be conditioned so as not to impair the utility of the roost site for current or subsequent roosting activities or occupancy.</p> <p>WAIVER: A waiver may be granted if the species becomes extinct, the site has failed to support roosting activities over a minimum 3 year period, or if the site conditions have changed such that there is no reasonable likelihood of site occupation over a minimum 10 year period.</p>
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(Table A-3 Continued)

	<p>Sage Grouse Nest Habitat</p>	<p>152,510</p>	<p>Sage Grouse Nesting Habitat. This area encompasses suitable sage grouse nesting habitat associated with individual leks. This stipulation will not take effect until direct and indirect impacts to suitable nesting cover exceeds 10 percent of the habitat available within 2 miles of identified leks. Further development, after this threshold has been exceeded, will not be allowed from April 15 through July 7. (Development can occur until 10 percent of the habitat associated with a lek is impacted, from then on, additional activity can occur from July 8 through April 14)</p> <p>EXCEPTION: The Area Manager may grant an exception if an environmental analysis and consultation with the CDOW indicates that the proposed action could be conditioned so as not to affect nest attendance, egg/chick survival, or nesting success. An exception could also be granted if the proponent, BLM, and CDOW negotiate compensation that would satisfactorily offset the anticipated losses of nesting habitat or nesting activities. Actions designed to enhance the long term utility or availability of suitable nest habitat may be excepted.</p> <p>MODIFICATION: The Area Manager may modify the size of the TL area if an environmental analysis indicates that the proposed action could be conditioned so as not to affect nest attendance, egg/chick survival, or nesting success. Timeframes may be modified if operations could be conditioned to allow a minimum of 70 percent of nesting attempts to progress through hatch.</p> <p>WAIVER: This stipulation may be waived if CDOW determines that the described lands are incapable of serving the long term requirements of sage grouse nesting habitat and that these ranges no longer warrant consideration as components of sage grouse nesting habitat.</p>
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[CODE WR24, WR\_RAPSG\_PA, WR\_SG\_LEK, WR\_SG\_PA]

**Appendix A**  
**(Table A-3 Continued)**

	<p>Elk Production Areas</p>	<p>12,690</p>	<p>Elk Production Area. This area encompasses an elk production area. No development is allowed from May 15 through June 30. (Development can occur from July 1 through May 14)</p> <p>EXCEPTION: The Area Manager may grant an exception if an environmental analysis indicates that the proposed action can be conditioned so as not to interfere with habitat function or compromise animal condition within the project vicinity. An exception may also be granted if the proponent, BLM, and CDOW negotiate compensation that would satisfactorily offset anticipated impacts to elk production or habitat condition. An exception may also be granted for actions intended to enhance the long term utility or availability of suitable habitat.</p> <p>MODIFICATION: The Area Manager may modify the size and timeframes of this stipulation if CDOW monitoring information indicates that current animal use patterns are inconsistent with dates established for animal occupation. Modifications could be authorized if the proposed action could be conditioned so as not to interfere with critical habitat function or compromise animal condition. A modification may also be approved if the proponent, BLM, and CDOW agree to compensation that satisfactorily offset detrimental impacts to elk production or habitat condition.</p> <p>WAIVER: This stipulation may be waived if CDOW determines that the area is no longer utilized by elk for production purposes.</p>
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[CODE WR25, WR\_ELK\_PA, WR\_RAPELK\_PA]

(Table A-3 Continued)

	<p>Big Game Severe Winter Range</p>	<p>512,905 acres</p>	<p>Big Game Severe Winter Range. This area encompasses big game severe winter range. No development activity is allowed from December 1 through April 30. (Development is allowed from May 1 through November 30)</p> <p><b>EXCEPTION:</b> The Area Manager may grant an exception if an environmental analysis indicates that the proposed action could be conditioned so as not to interfere with habitat function or compromise animal condition within the project vicinity. An exception may also be granted if the proponent, BLM, and CDOW negotiate compensation that would satisfactorily offset anticipated impacts to big game winter activities or habitat condition. Under mild winter conditions, when prevailing habitat or weather conditions allow early dispersal of animals from all or portions of a project area, an exception may be granted to suspend the last 60 days of this seasonal limitation. Severity of winter will be determined on the basis of snow depth, snow crusting, daily mean temperatures, and whether animals were concentrated on the winter range during the winter months. Exceptions may also be granted for actions specifically intended to enhance the long term utility or availability of suitable habitat.</p> <p><b>MODIFICATION:</b> The Area Manager may modify the size and timeframes of this stipulation if CDOW monitoring information indicates that current animal use patterns are inconsistent with dates established for animal occupation. Modifications may also be authorized if the proposed action could be conditioned so as not to interfere with habitat function or compromise animal condition. In addition, if the proponent, BLM, and CDOW agree to habitat compensation that satisfactorily offsets detrimental impacts to activity or habitat condition.</p> <p><b>WAIVER:</b> This stipulation may be waived if the CDOW determines that all or specific portions of the area no longer satisfy this functional capacity.</p>
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[CODE WR26, WR\_BG\_SRCH75, WR\_ELK\_SWR, WR\_MDELK\_SWR]

**Appendix A**  
**(Table A-3 Continued)**

	<p>Deer/Elk Summer Range</p> <p>[CODE WR27]</p>	<p>259,363 acres</p>	<p>Deer and Elk Summer Range. This area is located within deer and elk summer ranges, which due to limited extent, are considered critical habitat within appropriate CDOW Game Management Units. This stipulation will not take effect until direct and indirect impacts to suitable summer range habitats exceed 10 percent of that available within the individual Game Management Units. When this threshold has been reached, no further development activity will be allowed from May 15 through August 15. (Development is allowed until 10 percent of individual GMU summer habitat has been affected, then additional development is allowed from August 16 through May 14)</p> <p><b>EXCEPTION:</b> The Area Manager may grant an exception if an environmental analysis indicates that the proposed action could be conditioned to have no additional influence on the utility or suitability of summer range habitats. An exception may also be granted if the proponent, BLM, and CDOW negotiate compensation that would satisfactorily offset anticipated impacts to summer range function or habitat. Exceptions may also be granted for actions specifically intended to enhance the long term utility or availability of suitable habitat.</p> <p><b>MODIFICATION:</b> The Area Manager may modify the size and timeframes of this stipulation if CDOW monitoring information indicates that current animal use patterns are inconsistent with dates established for animal occupation. Modifications may also be authorized if the proposed action could be conditioned to have no additional influence on the utility or suitability of summer range habitats.</p> <p><b>WAIVER:</b> This stipulation may be waived if the CDOW determines that all or specific portions of the area no longer satisfy this functional capacity or that these summer ranges no longer merit critical habitat status. Waivers will also be applied to delineated summer range occurring below 2,250 meters (7,350 feet) in elevation.</p>
	<p>Sage grouse crucial winter habitat</p> <p>[CODE WR28]</p>	<p>0</p>	<p><b>Sage Grouse Winter Concentration Areas.</b> This area encompasses sagebrush habitats that are occupied by wintering concentrations of grouse, or represent the only habitats that remain available for use during periods of heavy snowpack. No development activity will be allowed between December 16 and March 15. The Colorado Division of Wildlife (CDOW) has indicated that these features exist on public lands within the White River Resource Area but have not yet delineated specific areas that will be subject to this timing restriction. <b>Specific Exception, Modification, and Waiver</b> language will be developed in cooperation with the CDOW after the affected areas have been delineated.</p>
	<p>Pronghorn production areas</p>	<p>0</p>	<p><b>Pronghorn Production Areas.</b> This area is located within a pronghorn production area. No development activity is allowed within this area between May 1 and June 30. The Colorado Division of Wildlife (CDOW) has indicated that these features exist on public lands within the White River Resource Area but have not yet delineated specific areas that will be subject to this timing restriction. <b>Specific Exception, Modification, and Waiver</b> language will be developed in cooperation with the CDOW after the affected areas have been delineated.</p>

Other stipulations supplied by Office:

[CODE WR38]	Cultural Resources	Cultural Resources RMP	[CODE WR31]
[CODE WR33]	Wild Horses	Paleontology <sup>A-21</sup>	[CODE WR32]
[CODE WR34]	Steep Slopes	NSO Undifferentiated	[CODE WR37,37a, WR_NSO_10]
[CODE WR35]	NLS	CSU Undifferentiated	[CODES WR36,WR36a, WR_CSU_015]
[CODE WR_NLSE]			[CODE WR_CSU_DIS]

# White River National Forest



**NSO - Slopes > 60%**

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Serial No. [CODE WRF1]

**NO SURFACE OCCUPANCY STIPULATION**

**No surface occupancy or use is allowed on the lands described below (legal subdivision or other description).**

**Areas identified with the following characteristics:**

1. Slopes steeper than 60 percent.

**Exception Criteria:**

**Modification of this stipulation may occur as long as resource values are protected.**

**For the purpose of:**

1. Preventing mass movements of earth such as landslides.
2. Maintaining or improving water quality to meet Federal and State standards.
3. Preventing significant or permanent impairment to soil productivity.

**Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820, FS Oil & Gas Regulations, 36 CFR, Sec. 228.104.)**

Form #/Date

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## NSO - Critical Bighorn Sheep Areas

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Serial No.

**NO SURFACE OCCUPANCY STIPULATION**

**No surface occupancy or use is allowed on the lands described below (legal subdivision or other description).**

Critical areas for bighorn sheep. Information on the location of these areas can be found on 1:24,000 scale maps located at the Forest Supervisor's Office.

**For the purpose of:**

•Protecting bighorn sheep habitats which occur on the Forest. The bighorn sheep herd in the Battlement Mesa area is one of 17 endemic bighorn sheep populations remaining in the state of Colorado, and there is much concern about the long-term viability of this herd due to its declining population.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

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**NSO - Federal & State Threatened and Endangered and Candidate Species**

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Serial No.

**NO SURFACE OCCUPANCY STIPULATION**

**No surface occupancy or use is allowed on the lands described below (legal subdivision or other description).**

**On all known locations of Federal and State Threatened, Endangered and Candidate species. Mitigation measures will be prepared and approved prior to any ground disturbing activity.**

***For the purpose of:***

**Meeting legal requirements for the protection of Threatened, Endangered and Candidate species.**

**Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820, FS Oil & Gas Regulations, 36 CFR, Sec. 228.104.)**

Form #/Date

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**NSO - Gold Medal Fisheries**

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Serial No.

**NO SURFACE OCCUPANCY STIPULATION**

**No surface occupancy or use is allowed on the lands described below (legal subdivision or other description).**

Gold medal fisheries. Gold medal fisheries on the Forest include the Blue River, the Roaring Fork River, the Fryingpan River and Gore Creek.

**For the purpose of:**

Protecting the water quality of such fisheries as well as the recreational opportunities they provide.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820, FS Oil & Gas Regulations, 36 CFR, Sec. 228.104.)

Form #/Date

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**NSO - Colorado River Cutthroat Trout Fisheries**

Serial No.

**NO SURFACE OCCUPANCY STIPULATION**

No surface occupancy or use is allowed on the lands described below (legal subdivision or other description).

Colorado River Cutthroat trout fisheries on the Forest (350 feet either side of the stream). These streams include:

**Rank 'A'**

Abrams Creek  
Corral Creek  
French Gulch  
Hahn Creek  
Hat Creek  
Lost Trail Creek  
Nicholson Creek  
Nolan Creek  
N. Fork Swan River  
Rocky Fork Creek  
Snell Creek  
Fawn Creek  
Mitchell Creek

**Rank 'B'**

Berry Creek  
Big Beaver Creek  
Butler Creek  
Cattle Creek  
Corral Creek  
Cunningham Creek  
E. Fork Red Dirt Creek  
East Lake Creek  
Express Creek  
Indian Creek  
Meadow Creek  
Miller Creek  
North Thompson Creek  
Polk Creek  
Spruce Creek  
Ute Creek  
W. Fork Red Dirt Creek  
Avalanche Creek

**Rank 'C'**

Black Gore Creek  
Hunter Creek  
Lost Creek  
McCoy Creek  
Middle Thompson Cr.  
Possum Creek  
Yule Creek  
Miller Creek  
Red Dirt Creek

For the purpose of:

Protecting water quality and instream habitats of the Colorado River cutthroat trout which is a Category 2, Candidate subspecies for Federal listing under the Endangered Species Act.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820, FS Oil & Gas Regulations, 36 CFR, Sec. 228.104.)

Form #/Date

**NSO - Historic Sites, Open Lithic Scatters and Paleontological Sites**

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Serial No.

**NO SURFACE OCCUPANCY STIPULATION**

**No surface occupancy or use is allowed on the lands described below (legal subdivision or other description).**

Lands having:

1. Historic sites (on register or to be eligible),
2. Open lithic scatters which after testing show potential to yield significant information about the prehistory of Colorado, and
3. Paleontological sites

**For the purpose of:**

Protecting the sensitivity and historic significance of these resources.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Oil & Gas Regulations, 36 CFR, Sec. 228.104.)

Form #/Date

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**NSO - 1B Management Areas**

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Serial No.

**NO SURFACE OCCUPANCY STIPULATION**

**No surface occupancy or use is allowed on the lands described below (legal subdivision or other description).**

**1B Management Areas. These lands are managed with an emphasis on providing for downhill or cross-country skiing on existing sites and maintaining selected inventoried sites for future skiing recreation opportunities.**

**For the purpose of:**

**Protecting the investment of facilities within the site, the use authorized by permit, safety of the users, the natural environment that initially made the site desirable for a ski area, and the existing recreational experience.**

**Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820, FS Oil & Gas Regulations, 36 CFR, Sec. 228.104.)**

Form #/Date

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**NSO - 3B Management Areas**

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Serial No.

**NO SURFACE OCCUPANCY STIPULATION**

**No surface occupancy or use is allowed on the lands described below (legal subdivision or other description).**

**3B Management Areas. The management emphasis for these lands is for primitive recreation experience in unroaded areas outside of wilderness. Management perpetuates essentially natural conditions and remoteness from mechanized human activities. Management activities are integrated in such a way that current human use leaves no permanent or long lasting evidence.**

**For the purpose of:**

**Conducting management activities which are consistent with the direction in the Forest Plan. [See above description of 3B Management Areas]**

**Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820, FS Oil & Gas Regulations, 36 CFR, Sec. 228.104.)**

Form #/Date

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**NSO - Hoosier Ridge Proposed RNA**

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Serial No.

**NO SURFACE OCCUPANCY STIPULATION**

**No surface occupancy or use is allowed on the lands described below (legal subdivision or other description).**

The proposed Hoosier Ridge Research Natural Area. If and when this area is officially designated as a Research Natural Area, it would be legally withdrawn from oil and gas leasing.

**For the purpose of:**

Protecting the unique ecosystem, threatened and endangered plant and animal species, and the integrity of research activities within the area.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820, FS Oil & Gas Regulations, 36 CFR, Sec. 228.104.)

Form #/Date

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**NSO - National Recreation Trails**

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Serial No.

**NO SURFACE OCCUPANCY STIPULATION**

**No surface occupancy or use is allowed on the lands described below (legal subdivision or other description).**

Forest national recreation trails (quarter mile either side of the trail). These trails are the Wheeler-Tenmile Trail, Continental Divide Trail, Vail Tenmile Trail, and Two Elk Trail.

**For the purpose of:**

Protecting the immediate environment of the trails including the recreational values for the segments impacted.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Oil & Gas Regulations, 36 CFR, Sec. 228.104.)

Form #/Date

**NSO - Recreation Special Use Developments**

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Serial No.

**NO SURFACE OCCUPANCY STIPULATION**

**No surface occupancy or use is allowed on the lands described below (legal subdivision or other description).**

Recreation special use developments.

**For the purpose of:**

Protecting the investment of facilities within the development, the use authorized by permit and the safety of the users.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820, FS Oil & Gas Regulations, 36 CFR, Sec. 228.104.)

Form #/Date

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**NSO - Administrative Sites**

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Serial No.

**NO SURFACE OCCUPANCY STIPULATION**

No surface occupancy or use is allowed on the lands described below (legal subdivision or other description).

Forest Service administrative sites.

For the purpose of:

Protecting Forest Service investment and use of facilities and the safety of the users.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820, FS Oil & Regulations, 36 CFR, Sec. 228.104.)

Form #/Date

**NSO & CSU - Developed Recreation Facilities, Backcountry Huts  
and Recreation Residences & Cabins**

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Serial No.

**NO SURFACE OCCUPANCY & CONTROLLED SURFACE USE STIPULATIONS**

**No surface occupancy or use is allowed on the lands described below (legal subdivision or other description). Surface occupancy or use is subject to the following special operating constraints.**

1. All developed recreation sites as identified in RIM including a quarter mile buffer around each site will have a NSO stipulation. Around the NSO buffer there is another quarter mile buffer that is restricted with a CSU stipulation.
2. All backcountry huts including a quarter mile buffer around each hut will have a NSO stipulation. Around the NSO buffer there is another quarter mile buffer that is restricted with a CSU stipulation.
3. All recreation residences and cabins including a quarter mile buffer around each site will have a NSO stipulation. Around the NSO buffer there is another quarter mile buffer that is restricted with a CSU stipulation.

**For the purpose of:**

Protecting the investment of facilities within the site, protecting the recreation experience and safety of the visitors/users, protecting the use authorized by permit, and protecting the natural environment that initially made the site desirable for development.

Any changes to these stipulations will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of these stipulations, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820, FS Oil & Gas Regulations, 36 CFR, Sec. 228.104.)

Form #/Date

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## NSO - Alpine

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Serial No.

**NO SURFACE OCCUPANCY STIPULATION**

No surface occupancy or use is allowed on the lands described below (legal subdivision or other description).

Land areas above timberline identified using the soil mapping units.

For the purpose of:

1. Preventing significant or permanent impairment to soil productivity.
2. Maintaining or improving water quality to meet Federal and State standards.
3. Minimizing the potential for significant or cumulatively significant impacts in alpine ecosystems, per 40 CFR 1508.27(b)(7).
4. Minimizing visual quality impacts.
5. Maintaining the integrity of associated ecosystems.

This stipulation is subject to exception, modification or waiver if an operator demonstrated that the above values could be maintained and that revegetation could be successfully accomplished. Exception, modification or waiver of this stipulation would require additional environmental analysis and another decision.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820, FS Oil & Gas Regulations, 36 CFR, Sec. 228.104.)

Form #/Date

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**NSO - Roadless Areas**

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Serial No.

**NO SURFACE OCCUPANCY STIPULATION**

No surface occupancy or use is allowed on the lands described below (legal subdivision or other description).

The Battlement Mesa, Assignment Ridge, White River, and Pagoda Peak roadless areas. The NSO stipulation applied to the Pagoda Peak roadless area will remain until the Routt National Forest analyzes the entire area in its Forest Plan revision.

For the purpose of:

Protecting the roadless character of the area.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820, FS Oil & Gas Regulations, 36 CFR, Sec. 228.104.)

Form #/Date

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**NSO - Maroon Creek Corridor**

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Serial No.

**NO SURFACE OCCUPANCY STIPULATION**

**No surface occupancy or use is allowed on the lands described below (legal subdivision or other description).**

**The Maroon Creek corridor on the Aspen Ranger District.**

**For the purpose of:**

**Protecting the scenic qualities in one of the most photographed corridors in the United States.**

**Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820, FS Oil & Gas Regulations, 36 CFR, Sec. 228.104.)**

Form #/Date



**TIMING - Big Game Winter Range**

Serial No. [CODE WRF17]

**TIMING STIPULATION**

**No surface use is allowed during the following time period(s); this stipulation does not apply to operation and maintenance of production facilities.**

1. Exploration, drilling and development activity will not be allowed during the period from December 1 through April 30.
2. New oil and gas roads on public lands will be closed yearlong to the public.

**On lands described below:**

Elk and mule deer winter range.

**For the purpose of:**

These areas have been identified in coordination with the Colorado Division of Wildlife. These areas support and sustain a large percentage of the total winter populations. These areas are important for animal survival during winters of harsh weather conditions. Disturbances and habitat losses may place unnecessary stress on the wintering big game herds and cause an increase in mortality.

**Condition under which this stipulation would be waived:**

Winter conditions which would not concentrate big game on the winter ranges.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

**TIMING - Elk Production Areas**

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Serial No. [CODE WRF18]

**TIMING STIPULATION**

**No surface use is allowed during the following time period(s); this stipulation does not apply to operation and maintenance of production facilities.**

1. Exploration, drilling and development activity will not be allowed during the period from May 1 through June 30.
2. New oil and gas roads on public lands will be closed yearlong to the public.

**On lands described below:**

Elk production areas.

**For the purpose of:**

These areas have been identified in coordination with the Colorado Division of Wildlife. Disturbance during the reproductive season may reduce herd productivity.

Condition under which this stipulation would be waived:

Conditions which would not concentrate elk on the production areas.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

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**TIMING - Colorado River Cutthroat Trout Fisheries**

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Serial No.

**TIMING STIPULATION**

**No surface use is allowed during the following time period(s); this stipulation does not apply to operation and maintenance of production facilities.**

1. Exploration, drilling and development activity will not be allowed during the period from June 1 through October 1.

**On the lands described below:**

Colorado River Cutthroat Trout stream tributaries.

**For the purpose of:**

Protecting water quality and instream habitats of the Colorado River cutthroat trout which is a Category 2, Candidate subspecies for Federal listing under the Endangered Species Act.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

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**TIMING - Boreal Western Toad**

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Serial No.

**TIMING STIPULATION**

**No surface use is allowed during the following time period(s); this stipulation does not apply to operation and maintenance of production facilities.**

1. Exploration, drilling and development activity will not be allowed during the period from April 15 through August 15.

**On the lands described below:**

Known locations of the Boreal western toad.

**For the purpose of:**

Protecting known populations of the Boreal western toads which are a Category 2, Candidate species for listing under the Federal Endangered Species Act.

**Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)**

Form #/Date

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**TIMING - Snowmobile and Cross-Country Skiing Corridors**

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Serial No.

**TIMING STIPULATION**

**No surface occupancy use is allowed during the following time period(s); this stipulation does not apply to operation and maintenance of production facilities.**

1. Exploration, drilling and development activity will not be allowed during the period from December 1 through April 1.

**On lands described below:**

Designated snowmobile and cross-country skiing corridors.

**For the purpose of:**

Protecting the recreational opportunities and community investment in these trail systems. These trails are also difficult to relocate.

**Condition under which this stipulation may be waived:**

When trail relocation may be necessary to avoid unacceptable disturbance. This would be done in cooperation with the local snowmobile and cross-country skiing clubs.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

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**CSU - Sensitive Level 1 Travel Routes**

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Serial No.

**CONTROLLED SURFACE USE STIPULATION**

**Surface use or occupancy is subject to the following special operating constraints.**

When necessary to meet VQO's, site clearings, collection facilities, structures, utilities and pipelines will be relocated. At the time of an APD a visual site analysis will be completed to determine if vegetation, topography and on-site controls are sufficient enough to mitigate visual impacts. If so, the site will be accepted and relocation will not be required.

**On the lands described below:**

Sensitive level 1 travel routes (a half mile either side of the route).  
[See Glossary for definition of a sensitive level 1 travel route.]

**For the purpose of:**

1. Preventing the placement of collection facilities, well sites or exploration activity within these routes that do not meet Visual Resource Management guidelines.
2. Providing Forest visitors with quality experiences.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

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**CSU - Communication Sites**

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Serial No.

**CONTROLLED SURFACE USE STIPULATION**

**Surface occupancy or use is subject to the following special operating constraints.**

1. Drilling operations will be located so as not to cause structural damage, either directly or indirectly, to the structures authorized by special use permit.
2. Drilling rigs will be located out of microwave paths or at a location agreed to by the permit holder(s), lessee and the Forest Service that will not interfere with electronic transmission or reception.

**On lands described below:**

Forest electronic communication sites.

**For the purpose of:**

1. Preventing damage to structures authorized by special use permit, and
2. Preventing the interference of electronic transmission or reception.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

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**CSU - Coal Leases**

Serial No.

**CONTROLLED SURFACE USE STIPULATION**

Surface occupancy or use is subject to the following special operating constraints.

- 1. Drilling operations will be located as not to cause structural damage, either directly or indirectly, to the structures authorized by special use permit.
- 2. Drilling operations will be located as not to cause interference with coal mining operations.

On the lands described below:

Forest lands having existing coal leases.

For the purpose of:

- 1. Preventing damage to structures authorized by special use permit.
- 2. Preventing interference with coal mining operations

Any change to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

Additional stipulation maps provided by office:

- [CODE WRF 25] CSU Steep Slopes 40-60%
- [CODE WF\_CSU-7] CSU (undifferentiated)
- [CODE WF\_NAA] No leasing area **G - 26**
- [CODE WF\_NAS] No leasing area



# Wyoming State BLM

Stipulations: Lease Notice No. 1 Special Lease Notice:  
(Enter Special Stipulation Notice)

- NSO (1) as mapped on the (Enter map name); (2) protecting National Register eligible or listed cultural resource site (Enter Serial Number).
- NSO (1) as mapped on the (Enter map name, legal description or Entire lease); (2) protecting (Enter Resource Value being Protected).
- TLS (1) May 1 to Jun 30; (2) as mapped on the (Enter map name, legal description or Entire lease); (3) protecting big game parturition areas.
- TLS (1) Nov 15 to Apr 30; (2) as mapped on the (Enter map name, legal description or Entire lease); (3) protecting big game crucial winter range. [CODE Wy\_1, Wy\_2, Wy\_3, Wy\_4, Wy\_5]
- TLS (1) Mar 1 to Jun 30; (2) as mapped on the (Enter map name, legal description or Entire lease); (3) protecting Sage Grouse nesting habitat.
- TLS (1) Feb 1 to Jun 30; (2) as mapped on the (Enter map name, legal description or Entire lease); (3) protecting Sharp-tailed Grouse nesting habitat.
- TLS (1) Feb 1 to Jul 31; (2) as mapped on the (Enter map name, legal description or Entire lease); (3) protecting Raptor nesting habitat.
- TLS (1) Feb 1 to Jul 31; (2) as mapped on the (Enter map name, legal description or Entire lease); (3) protecting Sage/Sharp-tailed Grouse and Raptor nesting habitat.
- TLS (1) Mar 1 to Jun 30; (2) as mapped on the (Enter map name, legal description or Entire lease); (3) protecting Sage/Sharp-tailed Grouse nesting habitat.
- TLS (1) Feb 1 to Jul 31; (2) as mapped on the (Enter map name, legal description or Entire lease); (3) protecting Sage Grouse and Raptor nesting habitat.
- TLS (1) Feb 1 to Jul 31 (2) as mapped on the (Enter map name, legal description or Entire lease); (3) protecting Sharp-tailed Grouse and Raptor nesting
- TLS (1) (Enter Dates Resource Value needs to be protected); (2) as mapped on the (Enter map name, legal description or Entire lease); (3) protecting (Enter Resource Value being Protected).
- CSU (1) The lease area may contain habitat for the threatened, endangered, candidate, or other special status plant and animal species listed below. Exploration and development proposals may be limited, or modifications required, or prohibited altogether, if activity is planned within the habitat boundaries of a threatened, endangered, candidate, or other special status plant/animal species as it then exists. Upon receipt of a site specific

- proposal, the authorized officer will review current inventory records of each location and may require that further localized surveys be performed to assure no threatened, endangered, candidate (category 1 or 2), proposed, or other special status species or habitat are present. (ENDANGERED SPECIES ACT OF 1973 AS AMENDED SECTIONS 2 AND 7.);
- (2) as mapped on the (Enter map name, legal description or Entire lease);
- (3) protecting (Enter name of species).
- CSU (1) Surface occupancy or use within 1/4 mile of a Sage/Sharp-tailed Grouse strutting/dancing ground will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts (2) as mapped on the (Enter map name, legal description or Entire lease); (3) protecting sage/sharp-tailed grouse breeding habitat.
- CSU (1) Surface occupancy or use will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped on the (Enter map name, legal description or Entire lease); (3) protecting Class I and II Visual Resource Management Areas.
- CSU (1) Surface occupancy or use within (Select 500 ft., 1/4 mile, 1/2 mile or type in other distance) of the (Select Campground, North Platte River or type in other) will be restricted or prohibited unless the operator and surface managing agency arrive at, an acceptable plan for mitigation of anticipated impacts; (2) as mapped on the (Enter map name, legal description or Entire lease); (3) protecting (Select Campground, Bald Eagle Feeding Areas or type in other).
- CSU (1) Surface occupancy or use within the (Enter name of constraining resource) will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. This may include development, operations and maintenance of facilities; (2) as mapped on the (Enter map name, legal description or Entire lease); (3) protecting (Enter Resource Value being Protected).
- CSU (1) Surface occupancy or use may be restricted or prohibited if paleontological sites exist unless paleontological sites are avoided or the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped on the (Enter map name, legal description or Entire lease); (3) protecting (Select Lance Creek Fossil Area or enter other area name) paleontological values.
- CSU Coal and Gas Conflict Special Lease Stipulation
- (1). Surface use or occupancy shall not be allowed by oil and gas lessee(s), operating rights holders(s), and/or oil and gas operator(s) on this Federal oil and gas lease to conduct any oil and gas operation, including drilling for, removing, or disposing of oil and/or gas contained in the Federal coal lease (Enter the coal lease number) unless a plan for mitigation of anticipated impacts is developed between the oil and gas and the coal lessees, and the plan is approved by the Authorized Officer.;
- (2) as mapped on the (Enter map name, legal description or Entire lease);

(3) For the purpose of protecting the first in time valid existing rights of the coal lessee, the Authorized Officer reserves the right to alter or modify any oil and gas operations on the lands described in this lease ensuring:

- a.) The orderly development of the coal resource by surface and/or underground mining methods;
- b.) Coal mine worker safety; and/or
- c.) Coal production rates or recovery of the coal resource.

The oil and gas lessee(s), operating rights holders(s), and/or oil and gas operator(s) of this Federal oil and gas lease shall not hold the United States as lessor, coal lessee(s), sub-lessee(s), and/or coal operator(s) liable for any damage or loss of the oil and gas resource, including the venting of coal bed methane gas, caused by coal exploration or mining operations conducted on Federal coal lease (Enter the coal lease number).

CSU (1) Surface occupancy or use within 1/4 mile or visual horizon of trail whichever is closer may be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped on the (Enter map name, legal description or Entire lease); (3) protecting cultural and scenic value of the (Select Oregon, Mormon, Pony Express, California, Bozeman or Overland or enter other trail name).

CSU (1) Surface occupancy or use within the Wind River Front Special Recreation Management Area will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) entire lease; (3) protect watershed, cultural, and wildlife values.

CSU (1) Surface occupancy or use within the (Enter name of constraining resource) will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts; (2) as mapped on the (Enter map name, legal description or Entire lease); (3) protecting (Enter Resource Value being Protected).